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Young Children's Play Fantasies

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ACKNOWLEDGMENT

INTRODUCTION

THE DIFFICULTY encountered by both researchers and clinicians in discovering children's unverbalized motives has led, in recent years, to the development of the so-called "projective techniques" (8, 25, 44, 53, 58, 61, 69, 78, 80, 82). With these testing methods, a child is permitted to express himself indirectly in terms of fantasy responses and thus to avoid the problem of direct verbalization, which may be either beyond his ability or too anxiety-evoking.

Among the most challenging of these techniques, because of its apparent effectiveness in the diagnosis of psychologically disturbed young children, is doll play, in which the child is allowed to dramatize his fantasies with dolls. In so doing he is believed to be "projecting," or representing in the behavior of the dolls, motivational systems which he himself possesses.

Doll play has come to be widely used clinically since its introduction to psychoanalytic procedures with children by Anna Freud (26) and Melanie Klein (41) as a substitute for more verbal methods (analysis of dreams, etc.) characteristically used in therapeutic psychoanalysis of adults (2).

It would require too lengthy an account to summarize and evaluate here the facts brought out, since the publication of Anna Freud's book, by the rather extensive clinical use of doll play material. Differences in play technique, incomplete data reporting, inadequate sampling, and especially the mixing of theoretical interpretations with empirical descriptions of fantasy responses (40) make an objective appraisal of the various contributions to date very difficult. The available data consist largely of case history reports of the doll play of individual children, usually of emotionally disturbed cases referred for diagnosis and therapy. Such data have nearly always been presented without statistical evaluation or systematic analysis. Their point is rather to give illustrations of how individual cases reveal emotional conflicts and defense mechanisms. This is done by reporting and interpreting a few "typical" play responses selected by the investigator. Emphasis on the study of the individual, on "gaining insight into mental mechanisms" (63) on "building a picture of the child in his life space" (44) has been customary. Only a few quantitative group experiments of an exploratory nature have been attempted (e.g. 6, 46).

The general finding that play techniques are not only diagnostically helpful, but that they assist also considerably in the reconditioning of socially inadequate habit patterns (31), has not only reinforced clinical routine work with play techniques but seems also to have stimulated methodological experimentation (10), scientific queries in general (71), and specific questions such as that concerning the therapeutic efficiency of different techniques (32, 67) or questions concerning the autodidactic and autotherapeutic potentialities of play (1, 52). Within orthopsychiatry and child psychology, play techniques are at present more often than not used independently of the psychoanalytic procedure in connection with which they originally secured attention. So-called play therapy has begun to stimulate research in areas new to it, such as, educational modification of normal children (7, 14), and it is not unlikely that, because of idiosyncra-

sies of the behavior of identification, play fantasies can and will be more widely and more fruitfully utilized in the social learning process of children in general.

Presently available research has, however, been mostly determined by clinical and other practical necessities demanding results in short order, or by theoretical outlooks incompatible with an analytical research approach. Research colored by these emphases has so far failed to isolate empirically clear and practically manageable variables to which play-fantasies can be experimentally demonstrated to be related. Without such defined variables, progress cannot be made in research, theory or application (76). Knowledge of these variables is a necessary condition for the discovery of the laws governing fantasy behavior. The logically primary step in the scientific analysis of play fantasy, therefore, is to attempt the isolation of such variables under conditions uncomplicated by clinical or theoretical necessities.

The present investigation was designed to establish some of the necessary conditions for this procedure. An attempt has been made (a) *to develop quantitative techniques for the study of experimentally induced fantasies of preschool age children*, (b) *to contribute to the feasibility of predicting actual social behavior from clinical measurements of these fantasies, and* (c) *to discover some of the variables that seem to be causally related to different types of fantasy responses.*

In order to carry out these purposes, thirty-five normal preschool age children were each given four trials with a doll play set-up under standardized conditions. The behavior elicited in this situation was recorded by observers using a notational system, devised for the purpose, which had a known degree of reliability.

The data from the investigation have been analyzed with reference to five classes of problems: 1) clinical techniques of elicitation of fantasies through use of doll play material; 2) quantitative measurement of doll play responses; 3) establishment of some normative points of reference; 4) specification of antecedent conditions for the occurrence of certain doll play responses; and 5) the correspondence between real life behavior and doll play fantasy.

CHAPTER I

A TECHNIQUE OF INDUCING FANTASIES THROUGH DOLL PLAY

CRITERIA FOR THE CHOICE OF METHOD

ACTIVITY, as it is induced for either clinical or experimental purposes, can be systematically clarified by viewing it as a stimulus-response sequence. In the present study, doll manipulation with verbalizations (dramatizations) are the responses. The doll equipment, the Experimenter's behavior, and various denotable past experiences of the child are the stimulus conditions, or instigators. The exact nature of the events that are immediately present for the child at the time of the experimental session is largely determined by the investigator, and these manipulable aspects of the total source of instigation constitute the "Play Technique".

A variety of methods of stimulus presentation are possible. Although keenly aware of the problem, clinicians who have made use of doll play rather extensively have not been too explicit in regard to relating the procedure of stimulus presentation to those play responses which yielded interesting information. Descriptions of play techniques, as such, exist in the clinical and research literature (10, 12, 16, 18, 44, 67), but they have not been explicitly related to differences in amount and direction of the consequent fantasy responses. To clarify this relationship is one of the urgent and difficult problems of research in this field, and, as will be shown later, the data of the present study throw some light on the question concerning effects of stimulation. But this investigation was not designed to investigate this particular problem, and therefore the technique

of stimulus presentation used here was selected for its seeming effectiveness in evoking thematic responses in young children and for fulfilling the research objectives.

The experimental purposes demanded a technique which would have the following characteristics:

(1) Give equal opportunity to all subjects to express themselves along similar lines of content. This was essential in order that each subject might be assigned to a position on each of a few response dimensions that could be defined in terms of certain thematic properties of the play.

(2) Permit the investigation of the degree of predictive efficiency of fantasy responses with respect to overt social behavior of the child.

(3) Elicit fantasies which can reasonably be hypothesized to have their antecedent conditions in an area of actual social adjustment (outside of the experimental or test situation) which is accessible to measurement.

During more than a hundred preliminary play sessions devoted to trial and error experimentation with methodological problems, the procedure described in the following pages was developed to fit these demands.

SELECTION OF SUBJECTS

The three main methodological criteria permitted the use of children enrolled in the Iowa Child Welfare Research Station's preschool as subjects. A stylized doll house, which represented the preschool building and its contents,

was used as play equipment for the experimental sessions. .

With children who have a great part of their experimental background in common (their school life), it was found feasible to induce fantasies on one general school theme. Children from the same school groups are probably less variant with respect to the range of school experiences and school attitudes than with respect to home experiences and home attitudes, i.e., the same range of environmental possibilities is available to all school children. This renders somewhat less difficult the interpretation of individual differences in doll play fantasies about school life than would be the interpretation of individual differences in fantasies about each child's individual home. Information about actual stimulation and social behavior in school can be derived from the same source for all children with respect to relatively specific stimulus situations common to all. Also more objective methods of measuring social stimulation and behavior are possible in school, especially in one with strong research interests and research trained personnel. By comparison, the gathering of psychological information about the home is more complicated and probably less reliable. These considerations led to the decision to elicit doll play fantasies about "school" rather than about "home."

However, this approach does not entail the assumption that all fantasies about school life are instigated by experiences or stimulations received in school exclusively. It is known that individual differences in play activities in preschool are related to different family experiences (59). Thus fantasies about school may portray motivational factors which are operative in both environments, a

conclusion which enhances the validity of doll play as a personality measure, although it does introduce interpretive complications for the present study.

In all, experiments were conducted with 55 children ranging in age from 34 mos. to 64 mos. Of this group, 15 were used for extensive preliminary methodological experimentation over a period of nine months (March to November, 1943). Of the remaining 40 children who were used for systematic purposes after techniques were established, five did not complete all of the experimental schedule because their families moved out of town, and therefore 35 children made up the experimental group on whom the results reported in later pages are based. Of these, 20 belonged to the younger preschool group (group III), which met in the morning, and 15 were from the adjacent age group (IV) which met in the afternoon. Both groups met in the same building, but they had different teaching personnel. From this personnel, two head teachers and two assistant teachers participated in this study. The age, sex, mental age, IQ, Smith-Williams Vocabulary-Test scores, and fathers' occupations of the final 35 experimental subjects are given in Table 2 in Chapter III.

EXPERIMENTAL PROCEDURE

Every subject was given four identical play sessions of approximately 20 minutes duration on different days. On the average, three days elapsed between sessions. An effort was made to take the subject at the same time of the day, 15 subjects being taken before they had had their rest or nap, and 20 after.

On the day a child was scheduled for an experimental play session, E approached the subject during free play activities and engaged him in a brief conversation about his ongoing play or work before asking, "Would

you like to have a turn playing with the doll house?" E noted down the activity in which the child was engaged, and rated his initial reaction to E's invitation on a six-point scale of: "eager acceptance", "willing to come", "matter of fact", "neutral", "hesitant", "refusal to come". After E secured S's cooperation he accompanied him to the laboratory across the street from the preschool. The children were used to being taken away from their school to "play games." This procedure seemed more effectively to sever the child from his rather strong social and play interests in school than did the use of more conveniently available space in the same school building.

The subjects were taken to a large cheerful upstairs room which contained no furniture. Behind a one-way vision screen an unnoticeable observer was seated. A stylized doll house model of the preschool, covered by a light cloth, was on the linoleum floor near a one-way screen.

On the way to the room the Experimenter engaged the subject in a conversation preparatory to the introduction of the play equipment to the child. Upon entering the room, Experimenter said, (showing anticipation of a pleasurable surprise): "There it is; you can pull the cover off and see what is under it."

The child usually complied readily, and he was then given a few minutes to look the doll house over, the sight of which evoked in all subjects considerable pleasure. Experimenter: "See? It is just like a little preschool, isn't it?" Then the child was invited to sit on one of the several rugs placed on the floor. Experimenter sat on another rug with his back to the one-way screen, in such a way that is was probable the child would face the screen during the play session.

The doll house (cf. groundplans in Observer's manual) simulated in simplified style most of the rooms in the subjects' real preschool without, however, following the actual room arrangement: (M)—Music and Living Room; (B)—Play Room with blocks; (A)—Art Room; (R)—Bed (Rest) Room; (LR)—Dining (Lunch) Room; (W-T)—Washroom and Toilet; (K)—Kitchen; (C₁, C₂)—Large Closets. The house was without roof so that dolls could be easily manipulated from room to room. Doll house and furni-

ture were constructed of tag board material poster-painted in a yellow and blue, comparable to the colors prevailing in the actual preschool. The furniture was of a proper size to fit the dolls used. In order to prevent excessive occupation with structural aspects of the play material and *to force the child to be thematically concerned with the dolls, i.e., the "social" aspect of the play material,* most of the few pieces of furniture were glued to the floor of the doll house.[1] The style of the furniture was simple, showing no decorative or realistic elaborations, yet specific pieces were easily distinguished as to their purported functions; e.g., the piano did not show the realistic detail of a keyboard, but it was nevertheless clearly recognizable as a piano.

The Experimenter had available for presentation to the children two teacher dolls and six preschool children dolls. They were flexible and would stand or sit if manipulated properly.[2] They looked quite realistic, with rosy cheeks, curly hair on the girls, and colorful but simple dress.

The doll house and the dolls were small enough so that the subject could view the whole set-up and not get lost in any single aspect of it simply because of the design of the equipment. This is the danger in using spatially very extensive equipment with young children. Consideration of fatigue and appeal also led to preference for a relatively small set (20" x 30").

After E and S had settled down on the floor, S was again told that this doll house "is just like preschool" and E continued to explain the set-up without the use of dolls. This was done rather extensively: E, pointing to the different parts of the doll house;

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[1] This also prevented interruptions of thematic play that are often encountered when loose miniature furniture is fumbled by a subject or a doll character. It is easier for the young child to seat or otherwise adjust the dolls to the furniture as long at it stays put.

[2] In general, the manipulation of these dolls (making them sit at the piano, standing them up to paint at the easel, etc.) seemed easy for most subjects; only a few subjects had to be taught in the initial moments of the first session how to handle the dolls. If the investigation had reached to still lower age levels, however, the motor and perceptual skills involved in the manipulation of the experimental material would have become an important variable.

"This is the music room where children may listen to records, this is the record player. . . . It can be turned off and on. . . . We can pretend it makes music. . . . This is the piano where the teacher can play and the children sing songs, just like in the real preschool; and here is the Art Room and easels where children paint . . . here are the closets . . . they open up this way and when you look into it, there are little books in it for the children to look at."

In general, the experimenter watched the subject's intention to interrupt or to ask questions and then gladly explained the physical set-up in some detail. Any tendency for the subject to manipulate part of the equipment spontaneously was not interfered with, but rather welcomed.

It should be noticed that by labelling and explaining the different rooms in the doll house, E not only described actions which could be performed by dolls in these rooms, but also illustrated for the child "how to make-believe;" e.g., E: "Here is the lunch room, where the children can have their lunch or where they can drink their juice. Here is a closet. It opens this way. The children can play house in it or hide. Here are the wash bowls where the children can wash their hands. These (pointing to thumb tacks representing faucets) can be turned and water will come out of them. That is, we just pretend that water comes out of them. That is the way we play this game."

The doll-less phase of the introduction to the doll play was complete when every room and its functions for doll play had been described to the child and after his questions as to limitations and "reality-irreality puzzles" had been explained to him.

The purpose behind this extensive doll-less introduction was three-fold: 1) to produce early the satiation of nonthematic interests in the equipment which, occurring later, would disrupt thematic activity. 2) It was considered important to provide each subject, regardless of individual differences in age and comprehension, with the same spatial orientation so that failure to elaborate on a subtheme could not be due to ignorance of certain aspects of the doll environment. 3) The task of "making up something," initially difficult for very young children, was intended to be facilitated by the

suggestions for stereotyped fantasy which were a part of E's explanation of the physical aspects.

After the subject was oriented to the functions of the different rooms and equipment of the miniature preschool, E paused and gave S a chance to ask for the dolls (children, teacher). E then announced the arrival of the teacher in school. He took one teacher doll out of his pocket. E: "Now the teacher comes to school; here she is." E briefly showed the teacher doll to the child. "Here comes the teacher. She walks, walks, walks. (Words go with the appropriate manipulation of the doll). She comes to the preschool and she says to herself, "I wonder where the children are. I do not see anybody here in the music room, so I better go look for them in all the other rooms of the preschool." She walks, walks, walks into the block room but no children. She goes into the lunch room where the children can have their juice or where they can have their lunch, but no children. She thinks maybe the children are hiding in the closet, so she walks over to the closet and opens the closet door. (We have to help her, she cannot open it by herself). No, there are no children in the closet, and so she goes on to look for them, etc."

Thus, E made the teacher go through all the rooms in her activity of looking for the children. During this process, E had again an opportunity to describe the functions of the different rooms and some of the stereotyped actions that could occur in them.

E: "After the teacher doll had finished her journey through all the rooms of the preschool without finding any children, she arrived in the music room and said, 'I guess there are no children in preschool yet. I think I was the first one to come. I think I will sit down here and wait for them to come to school.'" (Pause) Subject was usually fascinated by the performance and eager to find out who came to school. *Thus, early in the session, the child's realistic interest in the dolls as toys was transformed into thematic interest in the dolls as social characters.* All the above was done in a uniform way with all subjects.

By this time, S may have asked, "Well, where are the children?" When the teacher had been set down, E announced in a pleased

anticipating manner, "Now the children come to preschool. Who comes to school first? Who would you like to have in preschool?" If the child responded with the name of someone in his actual preschool group, E responded: "All right, here he comes." He took a doll of the appropriate sex and coloring from his pocket and made the doll walk into the school. E: "Johnnie comes to preschool now, walk, walk, walk. He goes in and takes his wraps off and he says 'hello' and teacher says 'hello Johnnie', and Johnnie says to teacher 'where are the other girls and boys' and the teacher says 'they have not come yet.' Johnnie sits down and sits near the victrola."

If S failed to respond spontaneously, E said, "Shall we have a little boy or little girl be the first one to come to school?" S usually complied with this request for a decision, and E then tried again to have the child name the doll, but if there was further resistance, E said: "We can give him a name later, it is getting late and it is time for him to be in school. You see the teacher is waiting . . . walk, walk, walk, 'hello teacher', 'where are the other children?' etc."

The introduction of the second doll was the same as that for the first except that in cases in which the first doll chosen was one of the same sex as S, E made sure that the second doll chosen was of the opposite sex from the first. E: "Who shall come next to preschool? Shall we have a little girl this time? The first one was a boy." This procedure assured that at least one of the three child-dolls used was of the sex opposite to S.

The third and last child-doll was the "identification doll." If S had not requested spontaneously that one of the earlier child dolls should represent himself, direct stimulation was applied by E: "Now, we have Johnnie and Mary and the teacher in school and they wonder where (name of S) is." Pause, while E waited for a spontaneous request by S to be thus represented. If no request occurred, the identification doll was produced and dramatized in the same way as the others but with more emphasis given to the social introduction of the identification doll to the other characters. Thus, E: "Ah! here he comes, here is Peter. Peter says 'hello teacher' and he says hello to Johnnie and hello to Mary, and they say 'hello

Peter'." If there was still no request, E said: "We should have a boy like you in preschool, shouldn't we?" S generally accepted this suggestion, but in case of refusal, E: "Oh, I think we should have Peter. Here he comes. Isn't he nice? His hair (or pants, or dress or whatever is appropriate), is just like yours.[3] Here he comes to preschool, walk, walk, walk." As this naming and identification procedure was completed, E: "Now all of the children are in preschool."

Many subjects asked whether there were any more coming, in which case E explained: "This is just a small school, let's pretend these are all who come today." In case of further insistence by S: "Where are all of the other children?" E: "This is only a little school, there is no more room. You see, there are only four beds upstairs, one for each of the children who came today and one for the teacher. Let's pretend nobody else came to school today, maybe they are sick or they did not get up in time. . . . There are no more coming today but we have a lot of them right here. Here is the teacher and Johnnie and Mary and Peter. They are all here and ready to do something."

This ended the introduction of the play material to the subject. Thereafter the Experimenter's verbal stimulations of the subject were directed toward creating and maintaining optimal conditions for elicitation of thematic responses, what was done by E depended to a large extent on what S would do spontaneously. Since the technique of such stimulation was rather complex, it is discussed separately in detail later.

The psychologically important role change, from that of a pleasantly excited onlooker to that of an active producer of dramatizations, was usually no problem. Most subjects were eager to take over the play and E was often hurried in presenting the following standardized *Aufgabe:* "*Now you go ahead and play with the children any way you like to. They can do anything they want to. You go ahead and make up any play you like about*

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[3] When the experimenter had some evidence that a subject reacted unfavorably to this personification of a doll, the "you" comparisons were not used, but all subjects received the initial identification pressure whether it was accepted or not.

what they do." Hesitancy or refusal to "take over" was overcome by the same techniques of verbal stimulation as those which were used to overcome nonthematic tangentiality.

At this point, E rated the subject's willingness to take over, using the same six-point scale on which was rated the child's reaction to leaving his school activities when asked to come to the experiment. The observer seated behind the one-way vision screen started recording the social stimulations and responses of the subject with the notational system described in the next chapter.

From the moment the child took over the dramatizations, and as long as he engaged in thematic responses, E assumed an interested but passive role. However, the child was not left entirely to play spontaneously. Rather, when E judged that the subject could be more thematic in his play, or when there were signs of tangential tendencies, he would use one of several predefined techniques of verbal stimulation. The particular kind and amount depended upon S's behavior at the moment, but only those techniques described below and for the purposes indicated were used. All of E's stimulations of S, except general rapport, were recorded by the observer.

When the observer had come to the end of the eighth two minute record he discontinued the recording and gave E a signal to terminate the play session. Observer and E then each made ratings on a scale of Emotional Involvement. This scale is reproduced in the appendix.

In order to terminate the play session E waited for a pause in the subject's doll manipulation and then suggested: "Let's pretend all the children are leaving the school now." If the subject, as happened very frequently, either ignored the termination suggestion or showed in other ways his intention to continue dramatization, E reminded: "We have played quite a long time and it was very nice, but I think it is time now to go back to Miss ——'s big school." No further termination pressure was needed and the subject handed the dolls back to E, who put them in his pocket. The child helped E cover up the miniature school "to be sure it wouldn't get dirty or lost, so that we can have it the next time to play with." "Would you like to come again and have another

turn to play?" Then S was taken back across the street to his school.

For the second, third, and fourth sessions there was no need for the elaborate initial orientation stimulation used in the first session. In other respects, the sessions were conducted in the same way as the first. After uncovering the miniature preschool, the dolls were selected and the identification and naming of the official identification doll occurred. It was left up to the preference of the subject whether the same dolls were used in succeeding sessions, except that E tried to keep in the game the same initially used identification doll. However, if this could not be achieved without strong pressure, the experimenter yielded to the clinically interesting rejection and all four dolls would be different ones if the subject insisted. The subject was again presented with the standardized *Aufgabe,* which again was the signal for the observer to begin his recording. From the moment the child took over to the termination signal, which was given 16 minutes later by the observer, all sessions were conducted in the same manner. At the end of the last (fourth) trial it was pointed out to S, for pedagogical purposes, that what had been played during the session had been "just a game" and that "these are just things and dolls; they are, of course, not real people, just little things to play with."

THE CLINICAL PURPOSES OF STIMULATING S VERBALLY

The kind and amount of verbal stimulation (encouragement, suggestions, directions, etc.) employed by clinicians and researchers during doll play sessions is an important part of the total instigation of the child's fantasy behavior. Questions concerning the manner and degree to which the psychologist should participate in the child's play are persistently given much attention because of the therapeutic importance of "transference" and "relationship." Considerable differences in practice are revealed, however, by comparing, for example, A. Freud's

technique with that of Klein, the work of Despert with that of Solomon, or Allen's approach with Levy's. Conclusions and recommendations also are at great variance. The optimal adult role to be adopted during a play session, for achieving any given purpose is unknown. What one worker considers a methodological "mistake" (for example, making a child identify himself with a particular doll, cf. 75) others use freely and apparently fruitfully. Obviously the matter demands systematic investigation.

In the absence of more systematic knowledge, the selection of the present method was made on the basis of what combination of available procedures, in the light of experience, seemed best to suit the present purposes. It is clear that the question of what kind and how much stimulation of the child there should be needs consideration of the purpose of the play session. Therapeutic purposes probably demand a different, more complex, adult-child relationship than do diagnostic purposes. When learning effects are intended, i.e., when it is attempted to change the child's motivations and habits by way of fantasy elicitation, the behavior of the adult usually goes beyond a friendly permissive anxiety-reducing attitude: he may make interpretations, suggestions, and give demonstrations some of which may have to contradict the child's spontaneously present intentions and thus actually give rise temporarily to conflict and anxiety. But since no therapeutic or educational modification of the child was here intended, a technique was devised which would bring about an optimal unfolding of the child's own play intentions through the recognition and (if possible) prevention of the factors which tend to interrupt thematic responsiveness.

From the experience gained in preliminary experimentation with various known approaches, the following three main factors were isolated as inhibitors or facilitators of projective play:

1. *Amount of support given to the fantasy performance.*

In play sessions of brief duration, which are standardized with respect to the general content of play (45), both the time element and the child's tendency to play nonthematically and/or tangentially are factors which speak against the possibility of letting S play altogether spontaneously. Moderate verbal stimulation, which leaves opportunity for spontaneity, appears to speed up the development of play fantasies without loss of validity. It helps the young child when first confronted with the task, and it seems to assist in cutting short excursions away from fantasy production once the play has started. Furthermore, when it is desired that the child focus his play fantasy on a given general theme, such as "school" or "home", some focusing stimulation is unavoidable for most S's.

2. *Child's interest in being represented in the play.*

The diagnostic usefulness of projective techniques in general and of doll-play in particular is based on the assumption that S will, in some way, relate himself to the objectively denotable characteristics of his immediate physical or social environment through the medium of fantasy. During projective play this may take a rather obvious form in some subjects: they show a more or less conscious, but in any case empirically clearly denotable, tendency to have their own person represented as one of the imaginary characters of the doll drama; i.e., they pretend to be themselves one of the characters. This behavior is what is meant here by *identification*. The methodological importance of identification stimulation was appreciated in preliminary experiments with an identification test when it was discovered that those children who represented themselves in the doll play performed thematically in an emotionally more involved manner than those who did not represent them-

selves in their dramatizations: interest in the self seemed to enhance the value of the play. It was also noted that some children seemed to need a suggestion of the possibility of self-representation to furnish the mechanics for the wish to be in the game. This seemed to increase their interest and thematic productivity. However, since it was also found that identification stimulation *when pressed too far* hindered rather than facilitated thematic productivity, especially in those subjects who did not approve of being represented, the identification stimulation finally used was restricted to the brief technique used only during the initial moments of each play session. An experimental advantage in the use of identification stimulation was seen in the possibility it offered to investigate empirically the validity of the "Projective Hypothesis" (65).

3. *Anxieties (self punishment or anticipation of reprimand from others).*

The occurrence of anxieties is to be expected in a situation in which a normal child is invited to do as he pleases. Such stimulation can easily become guilt provoking, especially to the young well-adjusted child who is constantly learning inhibitions. Ordinarily parents, and to some extent teachers, will interfere and disapprove when a child shows deviations from "nice play," and he has learned ordinarily to inhibit antisocial responses, such as aggression or sexual curiosity. In contrast with the deviant child, the normal, well-adjusted child is more strongly inhibited with reference to these socially undesirable actions. With this would go a finer judgment of what constitutes socially accepted and socially unaccepted forms of behavior in general and of play in particular. Thus it seems that the problem of anxiety during projective play with an adult observer is as important in work with normal children as it is recognized to be in play therapy with emotionally disturbed cases (74), although the sources of the anxiety may be different.

It was not surprising, therefore, to find that strong anxieties often existed about performing socially unacceptable play in front of the adult E. During the preliminary experimentation individual differences in the strength of these inhibitions were clearly

noted, as indicated, for example, by differences in resistance to, or hesitancy in, the development of nonstereotyped fantasies when there were signs of latent intent. It was decided for the purpose of providing comparably favorable fantasy conditions to all subjects, that when a child would show signs of anxiety, E would attempt to reduce it by appropriate stimulation as described below.

Consequently E's verbal stimulation of S had to fulfill three major functions:

1. To give support to S's fantasies rather than to realistic-play inclinations in general, and specifically to support those fantasies which focused on the common school theme.

2. To provide for the postulated need for self presentation by stimulating identification.

3. To reduce S's anxieties.

A fourth function was added for methodological reasons:

4. To facilitate the observer's recording task.

The fulfillment of these functions necessitated the creation of a play technique in which the adult-child relationship was characterized by intimate interest and semi-active participation.

One disadvantage of such interaction lies in the difficulty of producing strictly comparable experimental conditions for all subjects. It appeared impracticable to standardize the social stimulation on a non-psychological basis, that is, in terms of equality in number, type, and time of application of stimulus words. Rather, the three necessary functions of the E's stimulation, and the techniques by which these functions were to be fulfilled, were defined, and it was then left to E's judgment as to when the fulfillment of a function became necessary in an individual case (when the behavior of S deviated from "optimal thematic responses"), and which of a number of predefined techniques he should then use to fulfill

it. The observers were trained to watch E's behavior critically in order to count and classify his verbal stimulation of the subjects, so that, although this variable was not experimentally controlled, its occurrence would be known both in quantitative and qualitative terms. This procedure permitted a post-experimental estimate of the effects of the stimulation on the fantasy responses.

TECHNIQUES OF VERBAL STIMULATION

1. *Provision of Fantasy Support.*

Direct stimulation: E simply told the child to "play with the children in preschool." "to pretend, (make up, play out) a story about what the children and the teacher do in the school," to "show what the teacher (a child, or the children) are going to do next."

Imitation: E demonstrated a brief stereotyped thematic sequence showing how to manipulate dolls and how to make a story, what fun it is.

In dealing with occurrences of *thematic tangentiality* (i.e., fantasies which digress from school themes, such as the transformation of the teacher into the mother, the school into home or movie, etc.), E showed interest but did not positively encourage further elaborations, except in instances in which lack of encouragement in temporarily tangential fantasies would have meant the dropping out of fantasy responses all together. E waited until thematic transgression came to a halt, then time was given for S to begin relevant thematic responses by doll manipulation, or a verbal story was started, such as "let's pretend they have slept at home all night, it is morning again and . . . (wait to see whether S takes over) . . . they are back at school now." (The observer noted type and amount of thematic tangentiality of S.)

In dealing with *nonthematic tangentiality* (such as preoccupations with own or E's clothes, interest in closets, windows, one-way vision screens, light bulbs, etc.), E always waited to see whether S was really tangential. If so, some of the following techniques were used:

Positive approach: Non-thematic tangentiality was changed by transforming his realistic tangential interests into fantasy tangentiality; e.g., child in a realistic manner examined the closet and its contents. E: "Let us pretend that this is an apartment house." If S did become thematic his fantasies were then focused on the preschool theme by the use of a thematic stimulus bridge as in cases of spontaneous thematic digression; e.g., "yes, the plumber looked over all the toilets in the apartment house . . . but he could not get into one apartment . . . it is where the teacher lives . . . she is not at home . . . she is in school now . . . she wonders what the children are going to do next." *Negative approach:* satiation of nonthematic tangentiality by going rapidly into S's tangential interests, explaining about the items in which he was showing interest but not making the subject-matter very entertaining; e.g., "Yes, there is a truck outside, I can see it, too. It is very big and makes noise. It has dirt in it . . . it is full of dirt and very big and makes noise, etc." By contrast, the experimental equipment became again more interesting to S. *Direct approach:* simply told S to come back to "what the children are going to do next . . . etc." "It's fun to see what they are going to do next." "It's no fun to just stand at the window." *Compromise approach:* (used especially in initial tangentiality when child refused to take over the play): "You don't have to play, if you do not want to. I will do it for you." (E manipulates some dolls in an indecisive manner.) ". . . you can point and show where you like me to put the dolls for you . . . O.K. . . . they go where you say they should. . . ." After a while S would become sufficiently involved to help E and then to take over himself. (Observer noted type and amount of nonthematic tangentiality.)

2. *Identification Stimulation.*

Technique (cf. also description of experimental procedure above): E suggested, at the beginning of each play session, that the doll which looked (to E) most like S was the "prettiest" ("best"), and that it might be called by the subject's name. S was given opportunity to choose "himself," as well as the other children, as one of the characters participating in the doll drama. The dolls other than the Identification-doll were named first, and if S did not spontaneously

give any sign of representing himself, E dramatized: "John and Peggy have come to school already . . . they wonder where the nice girl is with whom they like to play . . . ah . . . here she comes . . . (E produces Identification-doll) . . . she is very pretty . . . the other children greet her . . . "Hello Mary." (Mary was the name of the subject). If S resisted the official identification stimulation, E did not present further identification stimulation.

3. *Anxiety Reduction.*

Symptoms: Behavior symptoms of anxiety are complex, difficult to specify completely, and often ambiguous. E was guided by the following overt manifestations: a) hesitancy in completely executing an apparently intended doll dramatization (inhibition of movement), b) looking at E for a reaction after or during execution of an incomplete or completed unorthodox fantasy response, c) sudden disruption of play and occurrence of tangential responses following good emotional involvement, d) withdrawal from play materials, e) haste in the performance of doll-actions as if to hide the action from E's eye, f) changes in facial expression, g) need to go to the toilet, h) demands to discontinue the play or leave the room.

Techniques: 1) *Personal friendliness.* E was generally responsive to social stimulations initiated by the child, and interested in his conversations, regardless of whether or not it yielded material relevant to a theme. E stimulated self-satisfaction and security by making approving comments concerning the child's personal appearance. E related incidents in which the child was observed to have achieved something of which he was still proud. E showed that he shared S's likes and dislikes. Indication was given that E considered S quite grown up. (These "rapport-comments" were not recorded by the observer, because this stimulation had no content-connection with the projective play. See, the Manual in the Appendix.)

2) *Verbal Sanction.* When the subject spontaneously but hesitantly performed an unorthodox doll act, and E felt there was a need for anxiety reduction, he would reassure S by approving comments such as "this was a very nice story, it is quite natural for the teacher to go to the toilet." "It

is all right, we can pretend anything we want to in this game." Care was taken to stay in the realm of such simple explanations ("it is natural", "it's all right if he (some doll) wants to") and not to expand into "deep interpretations". E tried to create the feeling in the child "I can be safe with this man," without being viewed by the child as a "seducer" or "naughty man." (64).

In cases in which there were strong guilt feelings leading temporarily to tangentiality, the experimenter would repeat part of the story which the child made up, in a rather neutral tone of voice, to show that the unorthodox theme the child had performed and had felt guilty about was nothing unusual.

3) *Anticipation.* In cases in which the subject appeared to intend to perform an unorthodox action but did not permit himself to do so, the experimenter would make a quick judgment as to the content and direction of action which he thought the child intended and then suggest this action to him as if the idea had come from the experimenter rather than the subject; e.g., a boy subject might fleetingly knock over a piece of the doll furniture or a girl doll and then stop his play or become stereotyped. E: "I like to pretend (pointing to a boy doll) he knocked the girl over, . . . it is quite natural for him to do so if he wanted to." Such explicit procedures were not often necessary, because when the experimenter simply made a gesture implying "that is what the boy doll did," the child apparently thought that the experimenter knew what he (the subject) had in mind and that E approved of it.

4) *Demonstration.* Actual performance or verbal suggestion of unorthodox doll action on the part of the experimenter were at times used. The experimenter would say, "Let's pretend that such and such (a doll) hit the teacher . . . he likes to do it . . . but what should she do?" This type of stimulation was used extensively by Levy (45), but, unlike Levy, E avoided questions of "Why" entirely.

The two last named stimulations, *anticipation* and *demonstration,* are not merely techniques of anxiety reduction but also suggest specific content. Whenever any of E's stimulation that was designed for anxiety

reduction took the form of content suggestion, it was recorded by the observers as such rather than as anxiety reduction.

4. *Facilitation of Observation.*

Basic consideration: Although the amount of understandable verbalizations which would accompany manipulative doll play varied somewhat from child to child, this factor did not introduce serious errors in the collection of the data. The present technique was purposely focused on the *manipulative* aspects of the doll dramatizations, thus exploiting one of the main virtues of the doll play technique: its behavioral quality. The child is mainly asked to *do* something, to play, rather than to *say* something. Thus the function of E's stimulation was only rarely that of stimulating verbalization.

Technique: In cases of manipulatively unclear doll acts, with no or unclear verbalization, further comments from S were stimulated by direct invitation: "Tell me what the children have done (or are doing)". . . . "I like to write down the story of what the children do" . . . "You tell me what they do, real loud, so that I can hear it all, I like your stories", etc. With a persistently silent subject, E would report unclear doll actions aloud in order to assist the observer.

AMOUNT, QUALITY AND EFFECT OF VERBAL STIMULATION

The amount of stimulation used with the experimental group of 35 preschool children, as recorded by the observers, was analyzed. On the average a subject received 43 (S.D. = 23) verbal stimulations during all four sixteen-minute play session (in addition to the unrecorded non-directive "rapport stimulation"). By far the greatest amount of stimulation (56%) was of the "general pressure" type, which contained no specific thematic suggestion but simply stimulated the subject to fantasies about the school theme in general. Stimulation in the direction of specific thematic responses comprised 32% of the total stimulation (aggression, 12%; sex and toilet, 4%; hiding, 3%;

rest, 1%; other specific stimulations, 12%). The nonsuggestive type of anxiety reducing stimulation (verbal sanctions) made up 12% of the total stimulation. These averages supplement the qualitative description of E's play technique, but a more crucial question concerns the variation in quality and amount of the stimulation and its effect on the child.

With respect to the quality of the experimenter's stimulation and general attitude, both observers reported to E on occasion that they found him fluctuating in the degree and warmth of interest he showed. These fluctuations were apparently not chance oscillations, for he would reportedly become more interested when the child produced interesting nonstereotyped thematic responses. Although E attempted to maintain a constantly high degree of interest and warmth throughout, and was unaware of important variations, it is quite possible that he did not succeed too well in this attempt. It is another question, however, of how much and in what direction the child was influenced by these qualitative fluctuations in interest and emotional tone on the part of E. Since this was an unmeasured aspect of E's stimulation the question cannot be settled here, but the writer is of the opinion that the effectiveness of environmental impacts on the child is a negative function of the intensity of the child's interest in his own actions. When the child's play became very interesting from E's standpoint, the child was usually as much interested in it as E was, and would pay little attention to the change in E's interest, as was noticed by the observer. When the play was less interesting to both E and S, E usually had to increase his stimulation of S in order to control tangential behavior.

Information is available concerning *variations* in amount of different types of stimulation. Since how much and what type of stimulation was used depended on the way a given child behaved in the play session and on E's judgment of the appropriateness of a given stimulation, great variability of amount and distribution of stimulation from subject to subject was unavoidable. For example, at one extreme, Subject No. 1710, a timid, fearful boy, received on the average 4.3 stimulations per two minutes whereas at the other extreme, Subject No. 1648, a thematically uninhibited boy, received only 0.6 stimulations per two minute period, the distribution of types of stimulation for all four sessions showing the following differences:

Types of Stimulation	Subject 1710	1648
nonsuggestive fantasy support	88	15
suggestive of rest theme	2	0
suggestive of thematic aggression	1	2
suggestive of hiding and fleeing	2	0
suggestive of sex or toilet-play	0	1
suggestive of other thematic Rs.	23	1
nonsuggestive anxiety reduction	23	1
Totals	139	20

Other subjects fall in between these extreme examples, a standard deviation of 23.3 (average = 43.4) for the total stimulation indicating the variability of E's verbal stimulation.

What *effect* do these differences in E's stimulation have on the individual differences in amount and kind of the children's fantasies? In trying to answer this question it must be realized that the stimulation E gave and the fantasy and other responses the child showed were not experimentally independent variables. For example, the correlation coefficient between amount of stimulation, regardless of kind, and total number of fantasy responses, regardless of kind, was found to be r = −.504. To the extent to which the stimulation failed in the first of its three major functions, to increase the productivity of thematically nonproductive subjects, this correlation may not show the effect of E's stimulation on S' behavior but may rather be indicative of the effect of S' behavior on E's verbal actions. It is impossible to separate clearly these two factors, and it is clear that any differences which different stimulation may show from this data to make or not to make could be due not to the stimulation but to differences in factors (such as anxiety, timidity or guilt) which brought about the stimulation in the first place. Separate experimentation designed to study the effect of stimulation needs to be undertaken to answer the general question of stimulation effects on fantasy production. However, with respect to any specific results, say the sex differences found in fantasy aggression, the problem of stimulus effects in the present investigation can be studied. For this purpose, for every important group comparison made on a fantasy measure, the relevant mean stimulation scores were also compared in order to see whether the result could be explained by differences in stimulation and suggestion. *It can be stated generally that these analyses of the data have failed to reveal any simple one-to-one suggestive influence.* The general interest in this stimulus variable warrants, perhaps, a more detailed discussion of this general finding.

The state of affairs with respect to fantasy aggression is probably the most illuminative:

It was found that the amount of experimental stimulation suggestive of aggressive fantasy responses was not sig-

nificantly correlated with either the raw amount of aggressive fantasies ($r = -.209$) nor with the relative amount of aggressive fantasies ($r = -.204$). This shows that suggestions to perform unorthodox responses were not only given to subjects who did *not* perform them, but also (as an anxiety reducing technique) to subjects who did perform them. These results may also show that verbal stimulation to perform thematic aggression responses were ineffective under the conditions of the present technique. That this is a possibility is further evidenced by the fact that groups significantly differentiated in thematic aggression are not significantly different with respect to amount of stimulation suggestive of thematic aggression. For example, 10% of the total thematic responses of the girls were fantasy-aggressive as compared with 28% for the boys, a statistically significant difference (cf. Ch. III); the mean stimulation score for suggestions of aggression were 5.20 (SD: 3.10) for the girls and 5.55 (SD: 3.83) for the boys, an insignificant difference. Further evidence of the ineffectiveness of suggestions for eliciting thematic aggressions from *any* subject, i.e., regardless of latent personality factors, is the fact that comparisons between overtly *normal destructive, weak destructive* and *strong destructive* children revealed differences both in total amount and in progression of thematic aggression (cf. Ch. V) which were *not* accompanied by significant differences in stimulation to show aggression.

In general, although this variable needs further study, it seems to the writer on the basis of his experience, that not much faith can be put in the power of suggestion of an experimenter *in a situation in which the child is repeatedly and explicitly told that he can behave as he pleases,* (or according to the "doll's wishes."). Under these conditions the young child learns to employ his privileges, and if he is left to his own devices most of the time he easily ignores or overtly contradicts suggestions made by E if they do not fit his latent tendencies. (These refusals of suggestions may take quite explicit forms: "I don't play that way." "They don't go there at all!" "*I* like them here, and they stay here!" "They are *not* naughty, they are nice!"). This viewpoint seems to be born out by the experience gained from extensive clinical work (67). The doll play experiments on normal preschool children conducted by Baruch (6), showing that no impressive effects result from definite suggestions to be "mean", corroborate the present findings.

Conn (17) describes a play technique which makes "no attempt to arouse antagonistic or hostile tendencies." He reports that "under these conditions aggressive manifestations and anxiety situations occur very infrequently." Conn's achievement of therapeutic (reeducative) effects in the absence of hostile manifestations is of great interest. He seems to imply, however, that the preponderance of fantasy-aggression observed by other workers may be due to suggestive stimulation, either through the nature of the play material (knives, guns, etc.) or through verbal encouragement. It is possible that the factors responsible for lack of hostile responses in Conn's patients lie in his play-technique, which is a form of adult-child interview (16, 75) characterized by constant verbal stimulation of the child. Frequent questioning of the child concerning his play may either interfere with the child's own intentions to continue, or serve as fantasy

support. In either case it probably also serves as a cue stimulus to inhibiting demonstrations of unorthodox responses.

It seems to the writer that whether a suggestion will have the effect of stimulating actions in a direction intended by a suggestion, or opposite to that suggested, or whether it is ignored will depend on three variables: 1) on the latent motivation in the child; 2) on the stimulus conditions, e.g., the nature of the adult-child relationship (transference) which develops during repeated play sessions, and 3) on the intensity of the child's interest in his own thematic productions at the moment of presentation of the suggestive stimulation.

The ineffectiveness of the type of verbal stimulation described above reliably to elicit specific actions is, of course, a very different question from that of its effectiveness in the reduction of the specific anxiety over performing socially unapproved responses.

Unfortunately, no measure of behavior clearly symptomatic of anxiety in the experimental play situation is available. However, it appears reasonable to assume that, in the present setting, the child's desire to end the play or to leave the situation is a function of either satiation (boredom) or of rather strong anxiety (47, p. 446). That the majority of the subjects did not reach a state of satiation during the four repetitions of the play sessions seems indicated by the fact that mean emotional involvement ratings steadily increased from session to session. If this is a valid indication of lack of boredom, the fact that 14 subjects did not show the termination or leaving tendency at all assumes significance as evidence for the absence or weakness of anxiety in these subjects. The remaining 21 subjects showed on the average 4.3 (S.D. = 3.8) instances of this behavior,

which for 64 minutes of play is a low number of occurrences for subjects who are used to "playing games" and who ordinarily tend to reject repetition of the same material. A further indication that probably no strong anxieties were maintained[4] is the child's willingness to take over the play in the initial moments of each play session. Anxiety tends to make a child hesitant about taking over the play. E's ratings show a steady decrease in the mean rating of hesitancy from "matter-of-fact-neutrality", scale value 2.8 (SD = 1.19), at the first play session, to "willing- (often eager)-acceptance" (of the Aufgabe), scale value 1.77 (SD = 0.89), at the fourth play session, with the group variance also decreasing.

The evidence reported in the last part of this chapter seems to indicate that E's verbal stimulation effectively fulfilled one of its major purposes: extinction of situational anxiety. It is conceivable, of course, and in the opinion of the writer, quite probable, that a different way of handling the children in the experimental situation, involving less profuse stimulation, would have achieved the same result.

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[4] Solomon (75) reports from clinical experience that, typically, "violent outbursts of (thematic) aggression" are followed by "equally intense anxiety and guilt." Although in the present group and experimental setting many fantasy-aggression "outbursts" were observed these were *not* followed by the behavior described by Solomon, as comparative inspection of the 2 minute observation-records before and following those with great amounts of intensive fantasy-aggression revealed. It seemed to the writer that guilt and anxiety are not the consequence, ipso facto, of the performance of unorthodox fantasy but that their occurrence depends on the quality of the adult-child relationship which develops during the play sessions and on the effect of E's efforts at anxiety reduction. Once the child feels safe with this adult (without considering him a "seducer") he enjoys his hostilities and becomes emotionally involved in his fantasy production. The child shows anxiety over his performance when his relation to the adult worker is as yet not clear to him.

E's stimulation appears also to have been successful as far as its "focusing" function was concerned: out of 5463 thematic responses elicited, only 334 (6%) had to be recorded as "unclassified" (Table 3). This result, it seems to the writer, cannot be duplicated with a less stimulating procedure mainly because of the subject's thematic and non-thematic tangentiality, which when left experimentally uncontrolled, increases seriously the group variance in fantasy measures. This, as was pointed out earlier, was for the present purposes not desirable.

CHAPTER II

QUANTITATIVE TREATMENT OF PLAY FANTASY DATA

ALL STUDENTS of children's fantasy agree to its "embarrassing quantity and variety" (67). One can observe and record in great detail the fantasy behavior of a child during a session, and this can be done from a large variety of psychologically relevant frames of reference (for examples of comprehensive qualitative approaches, cf. Lerner and Murphy (44), Griffiths (34). One can analyze the formal aspects (structure), the content, the emotional mood of *Fantasy* and interpret the meaning of such material ad infinitum. It invites specific hypotheses and its explainer is limited only by the breadth of his clinical experience with children's play fantasies, and by his taste for intuitive ingenuities. It is here more difficult to proceed in the conventional scientific analytic way: by selection of manageable and empirically clear part-aspects of the totality of theoretically available information. Ignoring a great deal of the child's behavior seems however to be an essential condition for a comprehensible scientific approach.

Yet, attempts in this direction, i.e., to quantify play fantasies which to some extent have been made by previous investigators (18, 46, 68), have not met with notable success.

Quite apart from considerations of scientific method the general usefulness of play techniques for research, clinical or educational purposes will depend upon the degree to which the data collection and analysis can be reduced to manageable proportions, using objective procedures which can be acquired by training and thus repeated and generally applied. The success of any approach to personality study does not depend on the degree to which it yields "a complete picture of the total unique personality" but on its usefulness, for the solution of diagnostic and predictive, as well as systematic, problems. The first prerequisite for an attack on these problems with projective doll play is that the data be treated selectively and quantitatively.

The present approach to the problem is based on two methodological considerations: 1) willingness to forego to some extent spontaneity of fantasy production in order to "focus" experimental stimulation designed to reduce variability in fantasy responses; and 2) willingness to forego comprehensive data on each individual's unique behavior during the play session in order to use a few carefully selected fantasy response dimensions that were common to all subjects.

In the previous chapter it was related how in standardized doll play situations the play fantasies of children with relatively homogenous school background become organized around the same major theme. The use of such a technique made it feasible, therefore, to specify beforehand the kinds of fantasy-response characteristics which were to be recorded. This in turn, permitted the use of a notational system with which an observer could describe all the relevant attributes of the action as it occurred.

This method permitted immediate statistical treatment of the data obtained, a clear advantage over the customary all-inclusive running-account method of recording projective responses. Running accounts of behavior by well-trained observers yield at best true

case histories of fantasy-sessions (19). Most investigators of doll play or other complex behavior use this method. It seems satisfactory for those interested mainly in the understanding of the individual case. However, many investigators (e.g. 70) although collecting data in this way, like to treat it statistically for normative and systematic purposes. They are methodologically in a difficult situation, on the one hand having a tremendous variety of responses recorded in some detail, and on the other having the need for individual and group comparisons which entail quantification of the data. To solve this methodological paradox, very laborious post-experimental desk-analyses and classifications—the reliability and validity of which are hard to determine—must be made in order that the variety of responses may be reduced to manageable proportions. The disadvantages and errors involved in such procedures are probably greater than the apparent disadvantages of that limitation in comprehensiveness which is inherent in the method of immediate selection and classification used here.

Three main classes of events were recorded: (1) thematic responses, (2) nonthematic responses, and (3) the experimenter's stimulation. By *thematic responses* is meant what the dolls are made to do by the subject and what is done to them by other dolls or by the S. This involves the actual manipulation, or verbal description of doll action, of one or more of the four dolls in such a way that they are pretended by S to have a role within an indicated dramatic event. This is the part of the subject's behavior which may be properly called fantasy. It is the playing out of a "story," the dramatization of dolls in living character roles. Such behavior varies from simple momentary demonstration of what a single doll is doing with a single theme to long and involved elaborations of complex social interactions among all four dolls involving a variety of themes. From preliminary observations with

the group of 15 subjects who were used for various exploratory purposes in connection with this investigation, 26 response dimensions that were more or less common to all subjects were found. These are defined behaviorally in the *Observer's Manual* to be found in the *Appendix*. Every thematic response was recorded in terms of these 26 response dimensions, and four main attributes were recorded for each doll action, or unit of response:

1) *Subthemes*

The rooms in the doll house, the play yard, and the outside provided eleven story-backgrounds within which doll actions or experiences could occur. The observer indicated, by tracings on a ground-plan of the doll house, to which of these subthemes a doll action related. (Cf. Appendix)

2) *Stereotyped or nonstereotyped* (cf. Fig. 1 and 2)

A stereotyped doll action is one which, in a given environmental setting, simulates the habitual play and routine actions and experiences which for real children would be obviously appropriate to and expected in that environmental setting. The doll acts to be considered stereotyped were defined for each subtheme. Examples are: painting in the art room, lying down to rest in the bedroom, eating in the lunchroom, and listening to the piano in the music room.

A nonstereotyped doll action was defined generally by exclusion as one which could not be classified as stereotyped. Specifically defined were the following kinds of nonstereotyped doll actions: aggressive (hostile), affectionate, commanding (directive), fleeing (hiding, chasing), and sexual. A nonstereotyped doll ac-

tion not classified as one of these was recorded as "unclassified" and was qualitatively described.

3) *Elaboration of theme*

A stereotyped doll action was classified into one of three increasing degrees of

stigators or recipients, depending on whether they initiated the action or were the objects of some other doll's action.

Examples to illustrate notations which resulted from this four-fold process of classification: when S made the teacher doll play the piano, it was recorded in
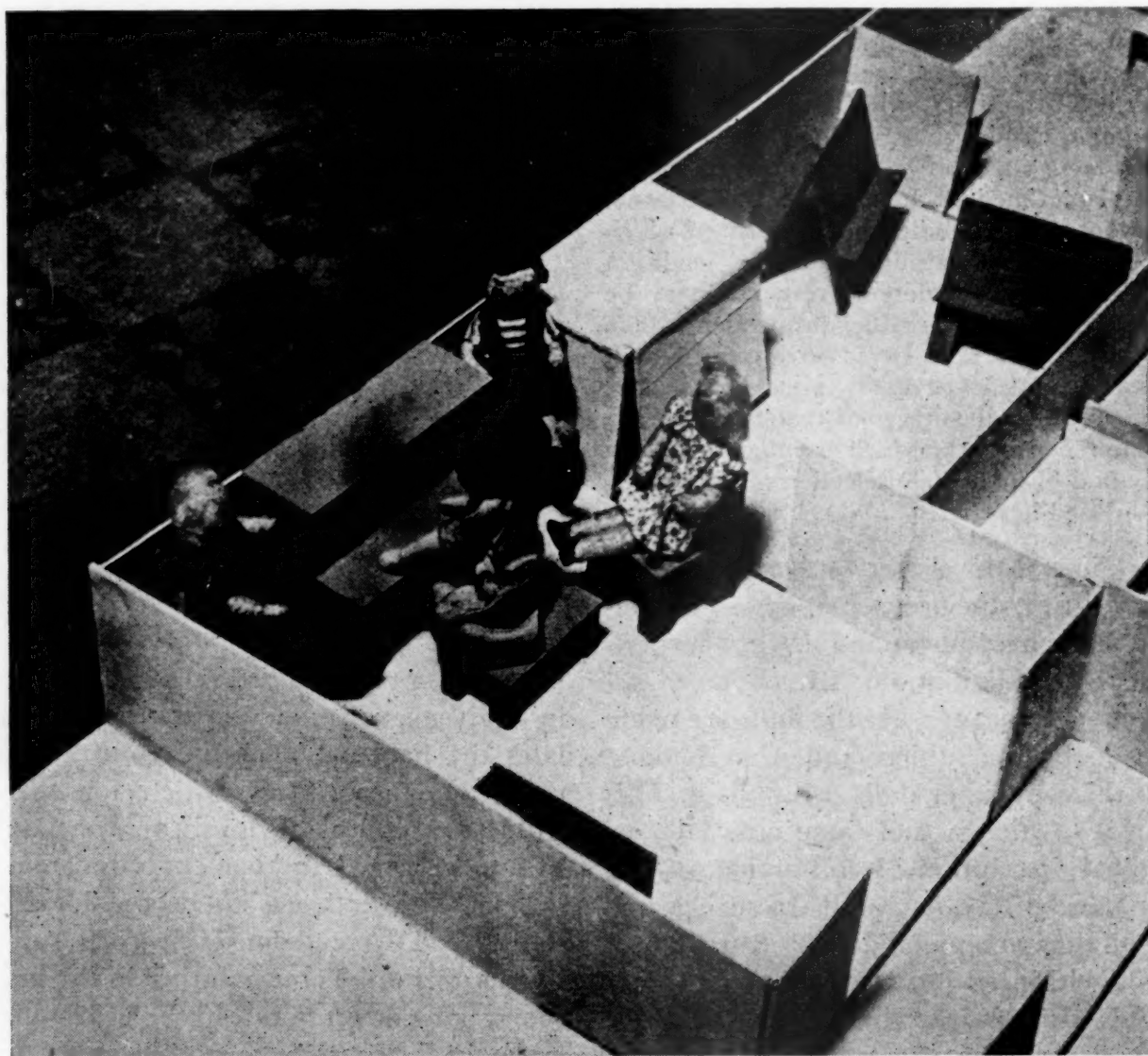
FIG. 1. Example of *Stereotype Doll Action* and Experience: "The Teacher plays the piano and the children sit and listen."

elaboration, depending on how much manipulative or verbal elaboration was shown.

4) *Instigator or recipient*

Doll-characters involved in nonstereotyped events were further classified as in-

such a way that appropriate symbols would stand for "stereotyped, posed, instigatory teacher doll act within a music-subtheme." When S made a boy doll push a girl doll into the toilet, the resulting notation stood for: "nonstereotyped, hostile interaction with boy doll

No. 3 instigatory, and girl doll No. 1 recipient within a toilet subtheme."

In addition to the classification and recording of doll actions, the Subject's nonthematic responses (tangential behavior) and the amount and type of verbal stimulation of the Subject were also classified and recorded as well as S's attempts to involve E in his projective play (i.e., the behavioral manifestations of transference).

entiated in the preliminary experimentation. The behavioral definitions of these types are also given in the Scoring Manual for Observers.

The experimenter's stimulation of the subject has been discussed in the previous chapter and the details of the scoring method are to be found in the Scoring Manual for Observers. It should be noted that E's verbal stimulation of S was *not* classified according its avowed
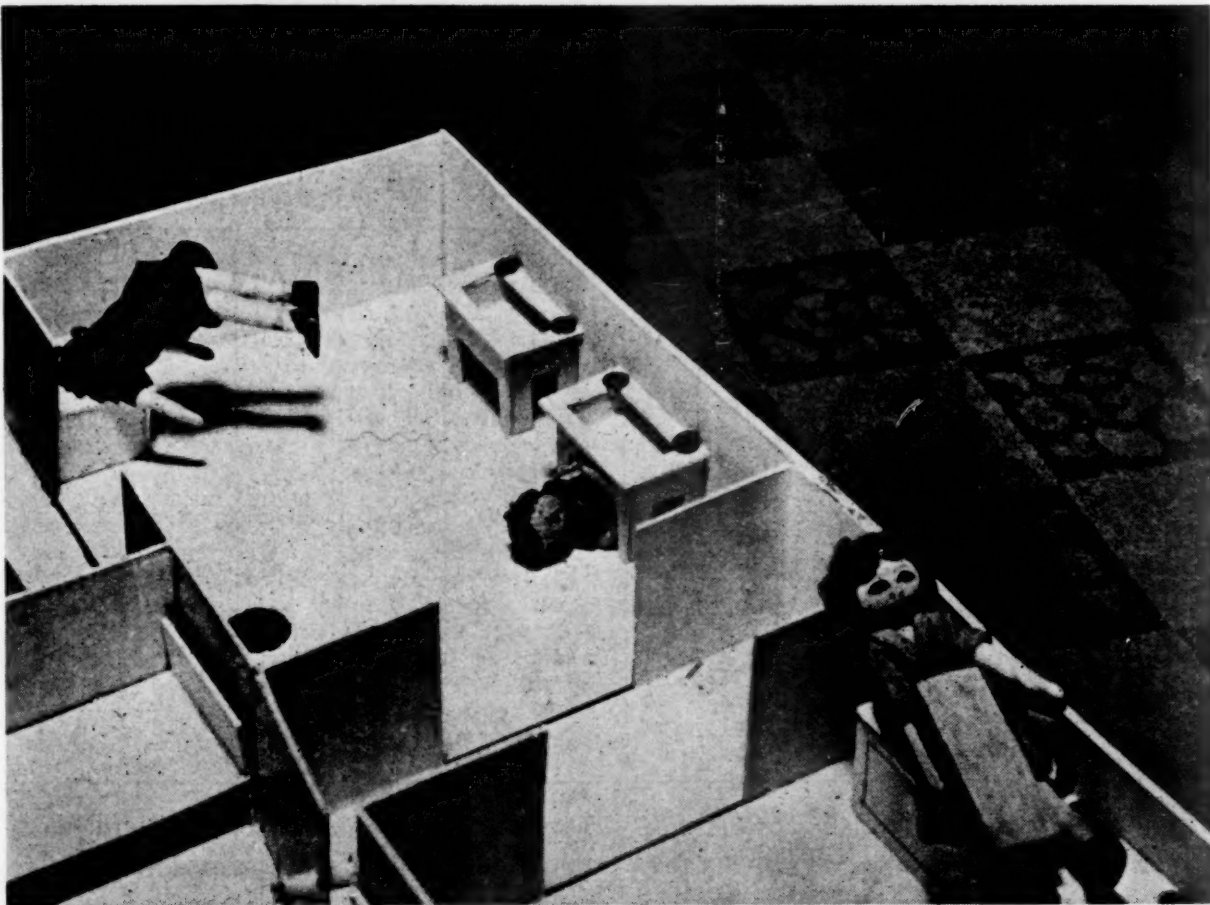
FIG. 2. Example of *Nonstereotype Doll Action* and Experience: Hostile Fantasy Aggression. One Teacher "burns" on stove, the other Teacher's head is pushed into the toilet; a boy is squeezed under the wash basin.

By *nonthematic* responses is meant behavior which was related to the experimenter or to the experimental setting. It was tangential to the thematic play, or dramatizations, described above. Such activity was by no means of uniform character, and ten different types were differ-

functional purpose, but according to the actual *content* of the stimulation.

RELIABILITY

The reliability of the observations can best be expressed in terms of percent agreement between two independently

recording observers. Estimates of the reliabilities of the different categories are shown in Table 1. They range from 70.6% agreement to 96.6% agreement depending on the category and the leniency of the computation method. Several methods of calculating the percent agreement are given. The values were based on a comparison of 64 two-minute rec-

type of a nonstereotyped act, that it was not a continuous but was a brief thematic act, and that the act belonged to a certain subtheme.

The measures of percent agreement represent, nevertheless, only rough estimates of absolute reliability, since the assumption that allocations by the two observers to the same category refer al-

TABLE 1

Agreement of Observers Based on 64 Two-Minute Records

Agreements concerning:	1 No. of observations by A.	2 No. of observations by B.	3 No. of agreements	4 Disagreements A with B	5 Disagreements B with A	6 % A agreed with B's observations	7 % B agreed with A's observations	8 No. agree. x 2 / No. obs. A+ No. obs. B	9 No. agreements / No. agree + No. disagree
1. Frequency of all doll acts indicating which theme, which doll, but not type of act	473	479	457	16	22	96.9	95.4	96.0	92.3
2. Frequency of stereotyped acts indicating theme, doll and degree of elaboration	391	399	346	45	53	88.5	86.7	87.6	78.0
3. Occurrence of nonstereotyped acts, indicating which theme, which doll, but not type of non-stereotopy	116	119	106	10	13	91.4	89.1	90.2	82.2
4. As above (3) plus indicating type of nonstereotopy	116	119	101	15	18	87.1	84.9	86.0	75.4
5. Freq. nonthematic (tangential) responses, but not type	75	75	68	7	7	90.6	90.6	90.6	82.9
6. As above (5) plus type	75	75	67	8	8	89.3	89.3	89.3	80.7
7. S involves Experimenter	15	14	12	3	2	80.0	85.7	82.8	70.6
8. Freq. verbal stimulation	70	71	64	6	7	91.4	90.1	90.8	83.1
9. As above (8) plus type	70	71	63	7	8	90.0	88.7	89.4	80.8

ords taken simultaneously but independently by the two observers on six preliminary subjects, just prior to experimentation with the experimental group.

Agreement was defined in the most rigid way; for example, 86% agreement in Table 1, line 4, column 8, means that both observers agreed that a nonstereotyped rather than a stereotyped action occurred within a a certain two-minute period, that the same doll was involved, that the doll was a recipient rather than an instigator, that it was one particular

ways to the same observed item within a two-minute time sample, although reasonable, cannot be proved to be valid.

The reliability of the ratings of emotional involvement, the observer's and the experimenter's ratings, made after each session, is estimated by a coefficient of correlation of +.79.

Analysis of the Data

Tabulation of the results of observations made in the way just described

yielded a large amount of data.[5] Since the present investigation is preparatory to more refined and concentrated research, only a few obviously relevant fantasy measures have been analysed by groups. The logic of statistical techniques employed was to determine whether or not significant relationships between extremes of relevant indices existed, rather than to obtain measures of the degree of the associations.[6]

The majority of these analyses involved the combining of the data for the four separated play sessions. A few "progression analyses" have been made when interpretation of the other data has necessitated knowledge of the de-

velopment of certain responses from session to session.

With respect to particular measures and their comparison, a decision had to be made whether the frequencies should be treated as absolute, or as values relative to a meaningful base line. Since there is some evidence that the raw overall quantity of fantasy response in any category is influenced by general skill, maturity and sex factors, it was decided to use relative frequencies. Furthermore, it seemed that individual differences in psychologically rather superficial situational shyness influenced the raw amount of fantasy responses. A further argument for the use of relative frequencies is that such a procedure avoids too fine segmentation of the total projective fantasy of a subject. Each breakdown remains relative to either the total performance of the individual or some large aspect of it. However, the disadvantages and assumptions entailed in the use of relative indices should be kept in mind: The assumption is made that the obtained proportions are unbiased estimates of a child's fantasies under the described conditions, that if the child had produced a greater raw number of fantasies under these conditions the obtained proportions would remain constant; the fact of differential sample reliability due to differences in N is disregarded by the use of proportions.

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[5] Limitation of space and economy made it impractical to publish all tabular material. More complete tables are filed in Bach (3).

[6] Most of the analyses were made in terms of averages. This procedure, although justified by its economy, ignores a great many aspects of the data of play fantasy. With the quantitative procedures of recording which were used, it is however technically possible to use as fine indices as are of interest. For example: the amount of reprimand a particular child doll receives from an adult doll during "lunch" can be tabulated, and questions can be answered concerning the types of thematic actions which preceded and followed this particular dramatization. The feasibility of such detailed analysis is of practical importance for those who wish to use this or similar doll techniques for the understanding of the individual case. The thorough clinical understanding of the individual child is thus not incompatible with quantitative analyses. Since the present investigation has not been concerned with the detailed analysis of the fantasies presented by a particular child, however, no case reports are here included.

NORMATIVE ASPECTS OF DOLL PLAY FANTASIES

NORMATIVE facts about projective fantasies are of crucial importance both for clinical interpretations of deviant behavior (32) and educational understanding and control of social learning in normal children (4, 5, 6, 7). A considerable body of such data has been secured in the present study, but because of the size and character of the population, the customary warning about the limitations of its applicability has serious importance. These facts are not normative for "the young child" as such, but only for populations of normal children who have the rather special characteristics described in Table 2. Further, the data presented must be considered not only with respect to the nature of the sample, but also to the idiosyncrasies of the play technique i.e., the stimulus conditions under which the data were gathered. (Cf. Chapter I)

TABLE 2

Description of Experimental Subjects

Subjects	Sex	C.A. in Months	M.A. (Corrected)	1937 St-Binet (L) I.Q.	Smith-W Vocab.	Fantasy Skill Ratings	Father's Occupation
1551	F	56	66	119	57	53	Physician
1555	M	58	63	109	—	43	Physician
1557	F	60	80	134	62	61	Academician
1558	F	49	63	128	56	58	Academician
1596	M	52	64	124	59	48	Business
1598	M	53	68	127	55	58	Business
1614	F	56	70	125	52	44	Academician
1616	F	62	79	128	60	39	Physician
1629	F	47	54	114	32	37	Academician
1632	M	52	70	135	64	54	Academician
1635	M	45	53	118	48	47	Sport coach
1646	F	41	58	142	51	72	Academician
1648	M	40	51	129	47	64	Academician
1650	M	47	60	128	60	62	Academician
1654	M	41	55	134	52	52	Career Officer
1668	F	57	66	115	42	55	Academician
1676	M	59	71	120	—	44	Academician
1702	F	44	60	137	40	40	Academician
1710	M	56	60	107	20	52	Sport Coach
1711	F	55	81	147	—	52	Academician
1714	M	50	58	117	58	40	Business
1715	F	45	55	123	48	53	Business
1718	M	58	74	128	59	53	Academician
1744	M	46	60	131	56	62	Physician
1745	M	46	45	102	49	48	Physician
1747	F	45	61	137	44	53	Sport Coach
1748	F	51	56	110	40	50	Academician
1749	M	43	48	112	39	38	Academician
1752	M	57	67	118	56	63	Sport Coach
1769	M	51	69	135	55	57	Academician
1770	M	44	39	89	21	37	Physician
1775	M	48	66	138	58	40	Business
1778	F	50	52	104	—	42	Business
1781	F	61	77	127	—	46	Academician
1782	M	63	80	127	—	47	Career Officer
Averages		51.1	62.8	123.4	49.7	50.4	
Standard Deviations		6.35	10.28	12.00	10.85	8.70	

The 35 subjects were rather homogeneous group with respect to age, intelligence, vocabulary, fathers' occupation, and preschool background. The group was further selected with respect to "adjustment," since noticeably maladjusted children are not enrolled in the Iowa Preschools. The homogeneity of the group should be kept in mind throughout the discussion of results in this and following chapters.

All subjects received identical experimental treatment. Subgroups for data analysis were arrived at by selecting a few from all the subjects with respect to criteria other than experimental treatment, such as sex, rest curriculum, overt aggressiveness, adjustment, degree of identification, conspicuous fantasies, etc. These subgroupings were not always mutually exclusive.

Individual Differences in Fantasy Production

Distributions of certain fantasy and nonthematic response measures have been selected for presentation which are likely to be interesting and useful as tentative frames of reference for comparative purposes. The mean, standard deviation, median and other percentiles are given in Table 3.

Inspection of the distribution of thematic responses shows that individual differences in amounts of fantasy and in the relative frequencies of different types of fantasies are great in all of the measures. This is significant in view of the relatively homogeneous population and the standardized play technique employed. On the other hand, there is sufficient commonness of response so that it would be erroneous to speak as if each subject produced a "uniquely individual play world."

The lowest number of fantasy responses produced by a child in four 16-minute sessions was 75, and the highest was 295, with a mean number of 156. (See Table 3, Part 1.) The proportion of stereotyped in comparison with nonstereotyped responses varied widely from individual to individual. At one extreme, the subject performed more than four nonstereotyped fantasies to every one stereotyped, while at the other extreme, the subject had nearly seven stereotyped responses to every one nonstereotyped. It is quite obvious that Rogerson's clinical observations of an "embarrassing quantity and variety" of fantasy responses in projective play is born out by the present experimental results. (67)

The Reproductive Character of Fantasy

Of systematic interest is the question of how much of the child's play fantasy can in content be traced to actual experiences and perceptions. By far the greatest number of the doll dramatizations studied here were clearly reproductive. The so-called stereotyped doll play fantasies were almost photographic reports of actual preschool conditions. Of the 5465 doll actions studied, 3225 were stereotyped. The average percent of nonstereotyped responses per child was 41%. Many of these were imaginary actions which in content simulated social realities. From this it can be fairly closely estimated that, under present stimulus conditions, not more than 25% of the thematic responses observed showed imaginary contents which *cannot* be characterized as rather faithfully reproducing physical or social realities.

This does not necessarily mean that 75% of the child's doll play fantasies are

true replicas of the environmental realities specific for that child. Rather, reproductions occurred of what others had been observed to do, as well as what the child himself had done or experienced.

Distribution of Themes and Types of Fantasies

Of the 5463 doll acts reported, 5115 (94%) had as backgrounds some school themes; 348 (6%) took place outside the

TABLE 3
Results of Four 16-Minute Play Sessions

Exp. Behavior Measures	Percentiles					Mean	S.D.	Group Total	% of Total
	1	25	50	75	99				
A. *Fantasy Measures*									
1. *Distribution of thematic response types* (Raw Frequencies)									
All thematic responses	75	117	151	182	295	156	37	5463	100
All Stereotype Rs	23	62	84	118	243	92	40	3225	59
All Nonstereotype Rs	15	38	59	86	154	64	33	2238	41
Affection	0	0	0	3	9	1	2	50	1
Directive-commanding	0	1	5	8	47	7	9	238	4
Hiding-Escape-Chasing	0	4	8	16	56	12	9	412	8
Aggression	3	11	22	40	103	31	25	1078	20
Sexual	0	1	3	5	14	4	3	125	2
Unclassif. Individualistic	0	2	7	13	30	9	8	334	6
2. *Distribution of themes* (Raw Frequencies)									
"Outside School"	0	3	7	14	42	10	9	348	6
Art-work-play	0	4	7	12	34	9	6	298	5
Gen. Free Play, blocks etc.	0	3	7	16	37	10	9	349	6
"Closets"	0	3	9	14	40	10	9	358	7
Kitchen	0	2	4	8	17	5	4	170	3
Dining-Drinking	0	3	11	21	39	14	10	489	9
Music-Living	4	15	27	41	84	31	19	1089	20
Rest-Sleep	4	18	26	44	81	33	19	1153	21
Toilet	1	12	20	24	46	19	7	664	12
Wash	0	5	7	13	22	9	4	303	6
Play Yard	0	0	3	13	27	7	8	242	4
3. *% of Nonstereotyped Rs of all Fantasy Rs*	13	30	42	50	81	41	15	—	—
4. *% of diff. types of all nonstereo. fantasies*									
% of affection	0	0	0	5	14	3	4	—	—
% of directive-commanding	0	0	6	13	60	11	13	—	—
% of hiding-fleeing-chasing	0	8	18	30	50	19	14	—	—
% of aggression	6	30	43	67	79	45	20	—	—
% of sexual	0	2	5	9	27	7	6	—	—
% of unclassif. indiv.	0	6	15	22	45	15	10	—	—
B. *Nonthematic Behavior* (*Raw Frequencies*)									
Manipulative play	0	2	4	8	19	5	4	188	15
Exploratory behavior	3	8	17	24	33	17	9	585	45
Aggr. vs. Play-Equip.	0	0	0	2	13	1	3	50	4
Aggr. vs. Experimenter	0	0	0	0	1	0	0	1	0
General Tangentiality	0	4	5	8	23	7	5	238	18
Wish to terminate	0	0	1	5	19	3	4	90	7
S involv. E (Transference)	0	0	1	6	19	4	5	136	11
ALL nonthematic behavior	7	20	32	51	84	37	19	1291	100

This result is of interest in connection with the often quoted hypothesis that in projective responses the child expresses what it cannot or will not express in other overt ways (25).

school frame of reference. Temporary transference of the school theme into some private theme, such as the home, occurred briefly with only 5 children.

From the psychological point of view,

three types of preschool activities of the young child can be distinguished: 1) free play, 2) teacher led constructive activities, and 3) authority-dominated routine and duty activities. It is known that the majority of teacher-child stimulations in nursery schools are related to the young child's adjustments to routines (42). Of the 5115 doll acts concerned with school life, 49% had dramatic background involving free play or constructive activities, such as art, block-play, music, playing house, etc., and 51% were concerned with routine or duty activities (rest, 23%; toilet and wash, 19%; eating and juice drinking, 9%). The least frequently occurring subtheme (3%) had to do with kitchen occurrences, an area of activity in which the children did not participate in reality.

Among the nonstereotyped dramatizations, there was a preponderance of fantasy aggression. The average subject, producing 156 thematic responses, showed 31 instances of fantasy aggression; this was 45% of his nonstereotyped fantasies. Affectionate fantasies comprised on the average less than 3% of all nonstereotyped acts ,and 57% of the children showed no evidence of fantasy-affection whatever. Doll manipulations denoting sexual curiosity averaged 7% of the nonstereotyped fantasies; hiding-escaping (chasing), 19%; commanding and ordering about, 11%; and unclassified individualistic types of play fantasies, 15%.

The distinction made between the instigator and the recipient of a particular doll play fantasy made it possible to analyze the direction of the fantasy aggression. The teacher doll was most often the recipient of the aggressions (29% of the time) whether these came from the subject directly or via a hostile action of a child doll character. The remaining 61% of recipient aggressions were distributed among the 3 child doll characters with the official identification doll being least often at the receiving end of aggression (21%).

The thematic background against which the aggressive doll actions occurred included the entire range of possible subthemes. However, most of the aggressive fantasies occurred against a thematic background of rest-activities (20% of all aggressions), and toilet-washing activities (17%); whereas dining-room activities served most rarely (2%) as thematic background to fantasy-aggression. It seems that hostile fantasies elaborate those environmental experiences that are conflictful.

Developmental Aspects

It is known that brighter children tend to show greater interest in play activities requiring thought and imagination than do less bright children (77). Systematic observations made in free situations indicate also that imaginary activities (dramatizations) increase in number of occurrences with age (54), and it is reported that older children produce more thematic material on the thematic apperception tests than do younger children (70). Verbosity and vocabulary are also known to increase rapidly within the age range used (39).

The present study made an analysis of the degree to which intelligence, fantasy skill, verbal and maturity factors were related to fantasy production. "Fantasy skill" was estimated by teachers' ratings of how much imaginative dramatization the child habitually showed in his play in preschool (see Appendix, Rating Scale VII).

The relationships found between the first variables: quantity of fantasy pro-

duced, and IQ, MA, CA, vocabulary, and fantasy skill, although not quite statistically significant, are all in the same positive direction (r = +.22, +.31, +.24, +.31, +.30) indicating, in the light of previous investigations, that these latter factors may as a group have had a facilitating effect on fantasy production. No appreciable relationships were found with the second measure: relative amount of nonstereotyped fantasies (r = +.03, −.11, −.10, +.21, +.20).

SEX DIFFERENCES

Studies of young children's social con-

mands and make social comments, brings up the question of whether these sex differentiations appear in fantasies also.

Comparisons were made of mean differences between the two sexes with respect to aggressive, socially directive, and other aspects of their fantasies. Out of 32 comparisons made, 15 large differences (of which 12 are statistically significant below the 5% level of confidence) were discovered. They are presented in Table 4.[7]

The most striking sex differences were:

TABLE 4
SEX DIFFERENCES

Measure	15 girls		20 boys		Diff.	l.c.c.
	Mean	Sigma	Mean	Sigma		
General Fantasy Measures						
N stereo	115.40	40.46	74.40	29.23	40.70	0.1%
% nonstereo	32.00	6.16	47.25	14.56	15.25	0.1%
% teacher	28.66	5.02	32.25	8.04	3.59	15%
% aggression	9.59	6.49	27.91	9.71	18.32	0.1%
Theme Elaborations (% of total)						
outside	4.43	3.77	8.29	6.24	3.86	5%
"closets"	4.63	3.84	8.93	6.38	4.30	5%
rest	23.24	7.10	17.19	7.10	6.05	2%
Types of nonstereos (% of total nonstereo)						
Affection	4.17	4.47	1.53	3.11	2.64	5%
Commands	20.40	16.12	4.08	4.32	16.32	0.1%
Aggression	30.09	14.70	56.76	15.12	26.67	0.1%
Unclassif.	18.30	10.84	12.58	10.30	5.72	15%
Aggression occurrence in themes (% of total aggression)						
Art	7.87	9.12	2.60	3.76	5.27	4%
Closets	5.23	9.20	16.64	27.26	11.41	15%
Rest	31.56	12.42	10.10	6.91	21.46	1%
Play yard	0.83	3.09	6.68	2.58	5.85	3%

flicts by Jersild and Markey (38) revealed that boys tended to use physical injury types of aggression more frequently than girls. Although "sex did not influence amount of talking," Fisher (24) found that preschool girls talk more about people than do boys. The greater amount of the physical types of aggression found in boys, in actual social behavior, and the facts that girls have a greater tendency to give verbal com-

1) Girls produced more doll actions than boys. 2) A greater proportion of

[7] When evaluating these and other selectively reported differences, the possibility should be kept in mind that among a great number of comparisons, chance alone could account for a proportion of so-called significant differences. This possibility argues for giving special consideration to those among the significant differences which theoretically—i.e., because of further independently deduced evidence—seem psychologically valid differences. The reader should also be aware of the assumptions made in the use of the test of the significance of a difference between the means of two small samples (cf:51).

the boys' fantasies were of an unorthodox (socially unacceptable) nonstereotyped character than were those of the girls.

Analyses of the distributions of different kinds of nonstereotyped fantasies revealed that (3) boys exhibited greater relative and absolute amounts of aggressively hostile fantasies than girls, (4) the girls greatly exceeded the boys in the frequency of verbal ordering and commanding, and (5) the girls were thematically somewhat more affectionate.

An analysis of the distributions of themes shows that (6) girls concentrated more on socially approved themes (e.g., resting) and boys more on socially disapproved play themes (e.g., locking people up in closets, toilet activities, etc.).

The interpretation of the sex difference in total frequency of doll actions (sex difference number 1 above) is aided by our knowing from other studies that play with dolls is more favored by girls than by boys (9, 34).[8] The greater familiarity with "playing make-believe" with dolls which girls must have, due to habitual play preferences, probably facilitated gross amounts of fantasy productivity. The fact that on the average the boys were given somewhat more total experimental stimulation than were the girls during the four sessions (Av. = 47 vs. 38) shows that according to the spontaneous judgments made by the experimenter during the play sessions the boys

needed more fantasy support than did the girls.

The girls' greater interest in people than in objects probably also facilitates doll play responses, since the task was to relate (either manipulatively or verbally) events about people (children and teachers) rather than about objects.

Differential habituation to doll-playing suggests interpretative possibilities for sex differences 2 and 6 also, the girls' greater stereotopy and "niceness." When young girls play with dolls, they do so frequently in the presence of adults. Doll dramatizations of young children easily attain the attention and interest of parents and teachers. Female subjects have not only had more practice with doll play than male subjects prior to the first experimental play session, therefore, but they also have had reinforcement of adult-approved stereotyped doll dramatizations.

If this explanation, in terms of learning principles (55), of girls' greater productivity and the socially more approved nature of the content of their fantasies is correct, then it should also follow from this theory, that boys have less difficulty in getting away from initial stereotopy than do girls. Since the present findings confirmed the previously reported (34) qualitative observation of a gradual lifting of inhibition with repetition of sessions for the group as a whole it was possible to analyze the data for each sex separately to show whether this deduction was born out empirically. Table 5 and Figure 3 show the rate of increase in the relative frequencies of occurrence of nonstereotyped doll actions as trials progressed. Boys and girls are definitely differentiated: the boys showed on the average at the end of the first trial a somewhat greater proportion of nonstereotyped responses. As play ses-

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[8] Cf. Miller and Dollard's (55) discussion of sex typing. However none of the boy subjects showed any signs of rejecting the dolls as "feminine" material (60). Even those 5 year old boys who seemed particularily conscious of their "masculinity" were easily taught the difference between the reality-use of a doll as a toy and its use as an imaginary character. It is possible that the sex of the Experimenter plays an important part in general and that in particular boys may be less rejective of doll materials when playing with a male adult.

sions were repeated, this sex difference increased significantly.

The greater amounts of thematic aggression of these three, four, and five-year-old boys fits well into similar results obtained by Sanford *et al* (70) from
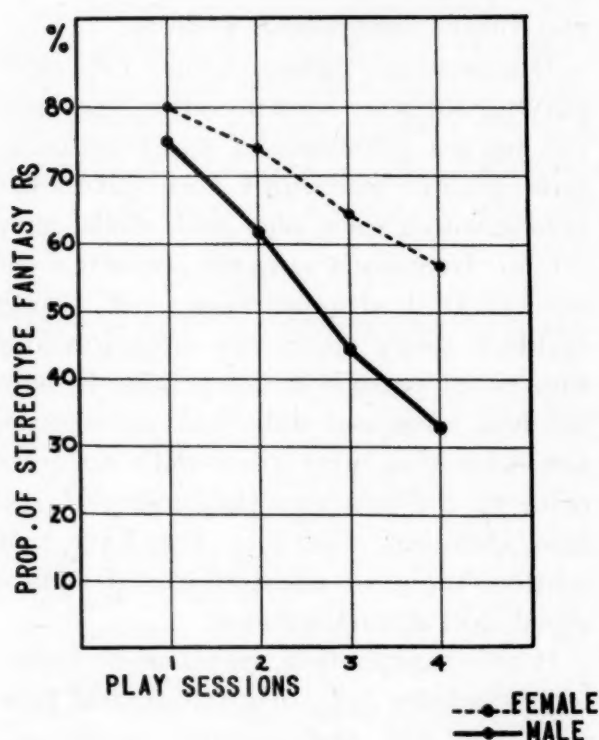

FIG. 3. Sex difference in decrease of stereotypy.

analyses of stories told by six to fourteen-year-olds in response to Murray's pictures. At every age level the boys scored significantly higher on "Fantasy-Need: Aggression" (62) than did the girls. The other most pronounced sex difference reported by Sanford (especially for ages 6 to 11) is the occurrence of greater amounts of thematic responses (story-items) symptomatic of "Fantasy-Need: Affiliation" in girls. This is also in line with the present findings (sex difference 5) and theoretical considerations. These comparisons may be taken as indications of the validity of the doll play type of projective technique.

The combination in girls of a relative lack of thematically overt aggression and a preponderance of verbal commands suggests again a theoretical interpretation in terms of learning principles. Commands and aggressive acts can both be viewed as responses instrumental to solution of social conflict (56). The instrumental act which leads to social conflict solution is strengthened with respect to future occurrence in similar social-stimulus situations, and instrumental acts which do not lead to favorable conflict solutions will be weakened. The studies of social conflicts in preschool children already mentioned showed not only that boys use more instrumental act aggression than do girls, but also that boys "win the fight" more often; i.e., boys are more often reinforced in aggressive responses than are girls. It is also known that whereas boys are frequently given positive stimulation toward aggression by parents and teachers, girls, in our culture, do not receive such stimulation to the same extent.

TABLE 5

Sex Differences in Rate of Increase in the Average Projection of *Non*-Stereotype Fantasy

	20 boys		15 girls		Diff.	l.o.c.
	Mean	S.D.	Mean	S.D.		
Session I	25.4	20.5	19.6	12.6	5.8	35%
Session II	38.0	16.1	26.0	16.4	12.0	4%
Session III	56.2	26.2	36.3	18.1	19.9	2%
Session IV	67.2	22.5	44.2	23.5	23.0	1%
Average	56.8	15.1	30.1	14.7	26.7	0.1%

These facts suggest that the habit strength for instrumental act aggression is considerably weaker in girls than it is in boys. On the other hand data on child-child social contacts in preschool (79) show clearly that girls are not without social conflicts; as a matter of fact girls at the preschool levels are just as socially ascendant (as distinguished from destructively aggressive) as are the boys (14). The possibility suggests itself that the girls have learned to use verbal commands more effectively than overtly aggressive behavior as instrumental acts with which to solve social conflicts.

An alternative interpretation might be based on the hypothesis that girls are more apt than boys to "identify" with the teacher doll, and that since a great proportion of the thematic responses are in the nature of "reality reporting," the girls would therefore use more commands. The evidence for this explanation of the sex difference is very meager; only 3 out of the 35 children gave clear evidence of identification with the teacher. They were all girls, but analysis showed that these 3 girls were not significantly differentiated from the other girls with respect to frequency of thematic commands.

The implication of these findings of sex differences in play fantasies for clinical purposes is obvious: the same amount of thematic aggression, for example, shown by a girl and a boy are probably diagnostic of different degrees of instigation to aggression. For experimental work in projective fantasy (especially play) these results points to the necessity for careful control of the sex factor.

INFLUENCE OF ENVIRONMENTAL STIMULUS CONDITIONS

TO JUDGE from the numerous discussions and speculations about "the meaning of play," the discovery of empirical laws which govern play-fantasy responses has been of widespread theoretical interest for some time. A number of hypotheses concerning the function of play-fantasy (in the Darwinian sense of gross overall adaptation) have been proposed (11, 35, 36). More recently Freud (28, 29) and some of his students (cf. 81) have attempted to "explain" play-fantasy by theorizing concerning its libidinal function in such terms as wish fulfillment, abreaction, repetition-compulsion, and mastery. Such concepts are difficult of exact definition, and their application to the problem has not materially aided in the discovery of useful empirical relationships. Other information about fantasy behavior, e.g., its longitudinal development (70), its functional value (in the sense of momentary motivation) as a substitute response (22), has been obtained. The relationships reported by Lewin's students (cf. 23), have led to importance being placed on "dynamic differences between different degrees of reality" in topological theory (43, 48, 49, 50).

Fantasy can be studied from still a different systematic standpoint, one which may have more practical usefulness in defining the relationship between fantasy-response and day by day stimulation and experience in the social environment. This is essentially an analysis of stimulus-response relationships attempting to tie up behavior with environmental stimulus variables as well as with individual difference variables (76). This approach relies for its basic

psychological principles on the facts and theories of social learning as described by Miller and Dollard (55) and social action as described by Dollard et al (20), and Sears (72).

Certain characteristic experiences provided for the children in the preschool, at the time of the play experiments, have permitted an initial attempt at this kind of analysis.[9] During the exploratory experiments with different play techniques it was noticed that the children elaborated quite extensively on doll dramatizations about resting and taking naps. Often the subjects would have all children (dolls) go to bed and have the teacher (doll) supervise them; frequently punishment would be inflicted on a "naughty" child by making him lie down in the rest room or go to sleep there. From observation of the actual behavior of the children, it was noted that all of them learned to comply in various degrees to resting or taking a nap during their day in preschool, but likewise, most of them showed avoidance responses to the rest situation. Ver-

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[9] The problem of demonstrating empirically the way in which a specific stimulus situation is causatively related to a certain type of fantasy response is extremely difficult. Theoretically it must be assumed that a multitude of factors are influential in determining any given action. It is the first task of scientific research to specify what variables are influential under what conditions. In the present investigation several variables, such as maturity, sex, and habits of aggression and compliance, were found to be relevant with respect to certain types of doll play fantasies. The results reported below point to environmental stimulation as yet another variable that influences amount or type of fantasy responses. When it is considered that there are many additional influences still unknown, e.g., home factors, it becomes impossible properly to evaluate the exact quantitative contribution of each single variable.

bal comments by the children[10] and their overt behavior symptoms (such as their greater reluctance and slowness in going to than in leaving the rest situation) supported the initial impression gained from teacher's comments to the effect that "probably none of the children really enjoys the rest situation."

EFFECTS OF FRUSTRATION

Systematically, the rest situation at the preschool can be viewed as a conflict between two competing motivated action

According to the frustration-aggression hypothesis (20), such an event creates a secondary drive state, the goal response to which is aggression.

Aggression may take many forms, including overt attack, verbal hostility, nonverbalized thinking, and fantasy. The strongest instigation is presumably to acts of overt aggression, but as Doob and Sears (21) have shown, other less direct and less realistic forms may occur when the subject anticipates punishment or nonreward for overt aggression.
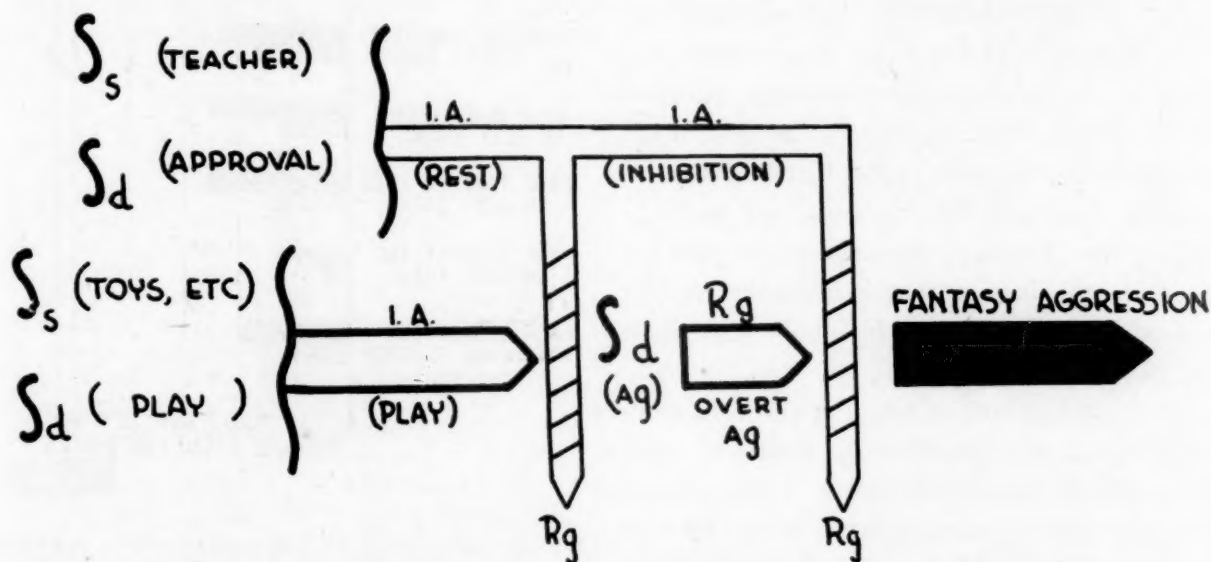

FIG. 4. Theoretical presentation of factors influencing fantasies about rest.

sequences. One of these is that of going to rest securing the approval of the teacher. The other is to continue whatever play or social activity is in progress. When the signal for performing the rest response is given by the teacher ("it is time for rest"), the child's instrumental activity devoted to the reduction of the secondary drive to play suffers frustration if the instigation to rest is sufficiently strong to elicit the resting response.

[10] "I must rest when I am tired"; "I don't like to go upstairs, I like to play down here"; "I like to rest real quick so that I can get up quick"; "I like rest but it is so long"; "If I don't rest the teacher comes," etc.

In the preschool situation, overt aggression is inhibited by the teacher's refusal to tolerate it and by her rewarding of nonaggressive behavior. As a consequence, the child may use a nonovert form of being aggressive. The doll play offers an opportunity for such expression in the form of fantasy.

These instigation-action relationships are illustrated in Figure 4. At the left are shown the symbols for the stimuli that elicit the child's conflicting action systems; S_d (Approval) is the drive to secure the teacher's approval and S_s (Teacher) stand for the signal stimuli

coming from the teacher that instigate the child's Instrumental Action (I.A.) of resting; S_d (Play)—the drive—and S_s (toys, etc.)—the environmental conditions—represent the factors that instigated the ongoing play behavior. The instigation to rest interferes and competes successfully with instigation to play, as indicated by the first cross-hatched arrow interrupting the play sequence. This frustrates the child. This frustration creates instigation to aggression ($S_d(Ag)$), which is shown here to have two possible responses: overt- and fantasy-aggression. The child anticipates punishment or loss of approval for overt aggression and this (I.A. inhibition) competes successfully with *overt* aggressive action. This is indicated by the second cross-hatched arrow. But no anticipation of punishment for *fantasy* aggression is present and the action system continues to the overt performance of fantasy aggression as the Goal Response.

The conditions of the experiment permitted a test of predictions based on this theoretical interpretation: For educational research reasons, two adjacent age groups (Groups III and IV) had rather different rest procedures. Each child in Group III spent only 10 to 20 minutes in the middle of the morning resting on his bed in the common bed room; in Group IV, each child was induced to take a nap for from one to two hours during the afternoon. Thus Group III can be labelled as the *short rest group,* and Group IV as the *long nap group.* This differential rest treatment had been in effect for four months prior to the play experiments. When the strength of the frustration-induced instigation to aggression is defined in terms of the degree of drive reduction (S_d-play) which would take place if the child were not interfered with, it follows that the amount of frustration (and strength of

instigation to aggression) is greater for the long nap group than for the short rest group. The reason for this is that greater delay prevents more consummatory play activity than does shorter delay. Furthermore, the long nap group was somewhat older, which factor tends not only to increase unwillingness to rest in the day time (30), but also to inhibit more successfully *overt* manifestations of aggression with respect to which no significant difference between the 2 groups
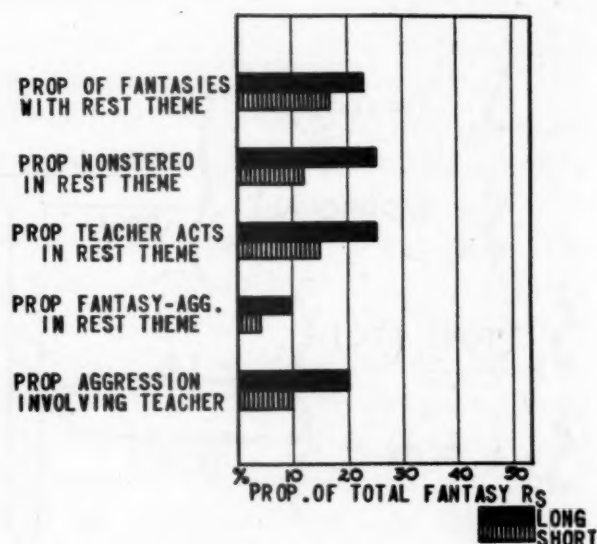
FIG. 5. Differences in fantasy-responses between long and short rest groups.

was detectable on the basis of the rating material on overt destructive- aggressive behavior. The day by day repetition of this differential interference stimulation would therefore build up more instigation toward fantasy-aggression in the long nap group than in the short rest group. Furthermore, such fantasy-aggression should involve the teacher because she was the agent of the interference stimulation.

To test this deduction, 20 children were taken from the short rest group and were compared with 15 children taken from the long nap group in terms of mean differences between them with respect to measures of fantasy-aggression.

The results of this analysis are given in table 6 and figure 5.

The results are in line with the theoretically derived predictions. The long nap group (greater frustration) is significantly differentiated from the short rest group (less frustration) with respect to theoretically relevant play fantasies. In the long nap group there was: 1) a greater proportion of rest theme occurrences, 2) a greater proportion of nonstereotype dramatizations within the rest

chronological age difference between the two groups, although possibly related to the greater total amount of fantasy responses of the long nap (older) group, cannot account for differences in the relative distributions of fantasy types or themes. The finding of a correlation between M.A. and raw frequency of fantasy responses of $r = +.306$ for the total experimental group, and an $r = -.113$ between M.A. and the *relative* frequency of nonstereotyped dramatizations, men-

TABLE 6

Comparisons of Thematic Responses Between Long Nap and Short Rest Groups

Fantasy Measures	Short Rest Group N = 20 Means	Long Nap Group N = 15 Means	Diff.	L.o.c. by t test
Total thematic R's	140.15	177.33	37.18	4%
% of fantasies with rest (nap) theme	17.30	23.09	5.79	5%
% of stereo fantasies with rest theme of all stereo	22.06	24.37	2.31	—
% nonstereo with rest theme of all nonstereo	12.14	25.03	12.89	1%
% teacher acts of all doll acts in rest theme	14.57	25.43	10.86	1%
% teacher doll acts of all doll acts	33.05	27.60	−5.45	—
% aggression in rest theme of all nonstereo	4.49	9.89	5.40	1%
% aggression any theme of all nonstereo	46.12	44.28	−1.84	—
% aggression involving teacher doll of all aggression (i.e., "punishment")	10.25	20.15	9.90	2%

theme; 3) a greater proportion of hostile doll act aggressions within the rest theme; 4) greater elaboration of the teacher doll (agent of interference) within the rest theme, and 5) a greater relative amount of thematic aggression which involved the teacher doll.

In order to control for the possibility that the long nap group (possibly because of maturity differences) was thematically more aggressive in general, and elaborated the teacher doll more in general, the data were analyzed accordingly, but no significant differences existed in these respects. The small differences show that the long nap group was somewhat *less* thematically aggressive and elaborated the teacher doll somewhat *less*. This shows that the mental and

tioned earlier, expresses the same fact.

Since both groups had approximately equal proportions of female subjects (46.7% of Group IV; 40.0% of Group III), the results cannot be accounted for by the differential sex sampling. The only possible effect the sex difference variable could have had was to reduce the mean frequency of thematic aggression relatively more for the long nap group (6.7% more females) than for the short nap group.

ANTICIPATION AND RETROSPECTION

Another question of theoretical interest is as to whether the *anticipation or retrospection of a conflict situation* (rest), influenced fantasies related to the content of the conflict. To get evidence on

this question, 15 of the subjects were taken to the experiment before they had their rest or nap, and the remaining 20 subjects were taken after they had fulfilled their rest or nap duties. The children were taken as near the actual beginning (or end) of the rest period as circumstances permitted.

An analysis of the rest fantasies of the group taken before rest (assumed to be anticipatory of rest) in comparison of those of the group taken after (assumed to be retrospective of rest at the time of the experiment), showed only one of five comparisons to be a statistically significant difference: the 15 pre-rest or pre-nap subjects had *less* thematic aggression within the rest theme than did the 20 post-rest or post-nap subjects. This difference was detectable for both the long nap and the short rest conditions, but when separately analysed it was no longer statistically significant. What differences there were, were more strongly shown in the long rest group than in the short.

Although the difference is not impressive, there is a trend for the subjects who, at the time of the experiment, had completed the rest or nap duties to elaborate more on the rest theme, particularly with respect to hostile aggression.

The results reported in this chapter indicate that environmental stimulation in the form of repetitive interference of child-motivated activities is influential in determining certain kinds and amounts of play fantasy. The findings suggest the possibility that children's frustrating experiences in general are expressed in play fantasy by way of *elaboration, characterized by hostile aggression, of dramatic contents relevant to that part of the child's environment in which interference stimulation is encountered,* rather than by wishful idealization or thematic avoidance of such contents.

Some individual cases reported in the clinical literature present facts supporting this generalization. For example, Sargent (71) reports that characteristic elaborations in the doll play of a boy were traceable to interferences suffered from the father, at the family dinner table. Rosenzweig (69) offers the hypothesis that young children's fantasies are "a mode of adjustment to frustration."

Further research will be required to determine how general the relation is between hostile fantasy elaboration and repetitive interference stimulation in frustrating situations in which *overt* counter measures are unadjustive.

THE CORRESPONDENCE BETWEEN PLAY FANTASY AND OVERT BEHAVIOR MANIFESTATIONS

IN CLINICAL and educational work it often happens that a good deal is known about the objective facts of a child's behavior, e.g., his "stubbornness," but for therapeutic or training purposes the motivational factors underlying it must be discovered. In other instances the observer is confronted with a child about whom he knows relatively little, but about whose future behavior judgments and predictions must be made. In either case, whether facts about behavior are available or not, the observer must have a reliable instrument for measuring the personality of the child. Projective fantasy has been widely used for this purpose because of assumed relations between the fantasy content and the motivational systems that instigate overt behavior.

This assumption is essentially an assumption about the *validity* of the doll play procedure as a measuring instrument. Since the child's motivational systems can be known only through his overt behavior (presuming that their historical development is unknown), the first approach toward determining the validity lies in the answer to such questions as these: (1) what kinds of fantasies are presented by children whose social behavior in preschool is already known, and (2) what kinds of overt social behavior are presented by children having different kinds of projective play fantasies?

To answer these questions, a comparison has been made between the child's thematic responses elicited in the experimental doll play situation and his characteristic behavior in pedagogically im-portant preschool situations. The latter variable was measured by use of a set of rating scales filled out by the preschool teachers.

MEASUREMENT OF PRESCHOOL BEHAVIOR

The areas of preschool behavior selected for measurement were chosen on the basis of several considerations. First, they had importance for social adjustment and personality development. Second, a job analysis of the teacher's duties indicated that she had to pay professional attention rather constantly to these aspects of the children's behavior; this determined whether, from the standpoint of her knowledge, it was practical to ask her to rate the children. Third, preliminary behavior observations and time sampling check methods of recording individual differences had shown that the dimension of behavior was easily discriminable from other dimensions.

A preliminary series of scales was tried out in the spring and summer of 1943. Those which showed no promise of good differentiation were discarded, and the rest were revised, especially with respect to objectivity of definitions, scale positions of the definitions, and the form for graphic presentation (13). Further systematic observations in the preschool, interviews with teachers and staff members of the Research Station preceded the final drafting of the scales. Copies of the scales used are shown in the appendix. They can be briefly described as follows:

Scale I: *Routine Compliance.* Children's

reactions to performing routine duties were described and placed on a scale ranging from severe resistance to active compliance.

Scale II: *Acceptance of Guidance.* Symptoms were described for degrees of acceptance of the teacher's suggestions and teachings in constructive play situations.

Scale III: *Attachment to Teacher.* Behavior symptoms of the children's tendencies to seek or avoid emotional-affectionate contacts with the teacher were provided and the teacher was asked to rate each child's emotional attachment to her.

Scale IV: *Social Effectiveness.* Reactions of other children to the rated child's social approaches were described in terms of willingness or refusal to cooperate with him.

Scale V: *Destructive Aggression.* The teacher was asked to place each child in one of five categories, depending on the degree of destructive aggression he habitually showed in his relation to objects and persons in school.

Scale VI: *Activity Preferences.* A list of free play activities was provided and the rater was asked to indicate the play activities the child most frequently used.

With all but Scale V the raters were asked to base their ratings on observations made during the eight to ten school days preceding the day on which the ratings were requested. This arrangement was made in order that the ratings would cover approximately the same period as the experiments. At least six children were rated at the same time on each scale. Scale V was handed to the raters toward the end of the school semester during which the experiments were conducted.

The rating sheets were handed to the raters with a request for careful consideration, but without further explanations or discussion. Each child was rated independently by the head teacher and by one assistant teacher. Each teacher rated only the members of her own class. Thus the 20 children in Group III were rated by one pair of teachers and the 15 children in Group IV by another pair of teachers. There is some methodological disadvantage which becomes relevant when the subjects are treated as a single group. In spite of careful definitions, the ratings from different groups can hardly be considered strictly comparable, i.e., as if the scales were "absolute." When extreme cases have been chosen for comparison, therefore, the distributions have been considered separately, and an equal number has been chosen from each of the two groups.

Ratings were expressed in terms of the distance (in mm.) of the rater's check mark from a base line. These raw ratings were converted into "Z scores", and the ratings of the two teachers averaged to arrive at the final rating for each child. This rating was converted by means of constants in such a way as to avoid negative values.

Converting the raw scores into "Z scores" served the function of correcting for differences between teachers in lenience or strictness (i.e., position of the mean rating given) and variability (i.e., width of the distribution of a given teacher's ratings.)

A meaningful quantitative estimate of the reliabilities of the ratings was not available. An index of agreement between the two teachers who rated the same child was not computed, since each teacher had somewhat different functions in relation to the children, supervising the same children at different times of the day and in different situations. The teachers were not asked to repeat their ratings, because 1) the behavior of the children may actually have varied within any time interval long enough to dissipate immediate recall, and 2) research trained teachers cannot help being aware of repetitive ratings and their purposes. Feeling themselves on trial, they often try to remember their previous ratings rather than make new independent judgments. Thus, because of the first factor, low agreement between ratings may not signify low reliability, and the operation of the second factor may prevent high agreement from signifying high reliability. The only indication that the ratings were reliable lies in the choice of the subject matter of the ratings. The scales concerned behavior with which the teacher had to deal professionally in her job; she had motivation and skill for observing and information about the behavior described in the scales. The reliability of the rating material introduces no complications in the comparison involving *extreme* groupings: In order to be included in an extreme group, *both* raters had to agree that a child belonged at the extreme end of the behavior dimension.

In order to estimate the extent to which

the teacher's bias or halo was operating and to show that there was appreciable discrimination in the ratings of rather closely related behavior aspects these intercorrelations between the rating scales are given.

Ratings of routine compliance (Scale I)
vs. ratings of acceptance of guidance
(Scale II) +.764
Ratings of routine compliance (Scale I)
vs. ratings of emotional attachment
(Scale III) −.259
Ratings of routine compliance (Scale I)
vs. ratings of social effectiveness (Scale
IV) +.304
Ratings of acceptance of guidance (Scale
II) vs. ratings of emotional attachment
(Scale III) +.217
Ratings of acceptance of guidance (Scale
II) vs. ratings of social effectiveness +.300
Ratings of emotional attachment (Scale
III) vs. ratings of social effectiveness
(Scale IV) +.123

The coefficients show that children who either comply readily to routine duties or are responsive to the teacher's effort to give

the boy and the girl with the lowest score on routine-resistance (Scale I) in each preschool group. The compliant child was described on the rating scale as: "child enters into routine duties, (e.g., juice drinking and eating, rest, toilet, dressing and undressing, keeping clean, etc.) on his own, i.e., when the teacher merely indicates that it is time for. . . ." The noncompliant child was rated as: "strongly resists entering into routine duties; needs much teacher pressure to do routine." The two groups were equivalent as to MA, CA and sex.

Of fifteen comparisons made, the six differences presented in Table 7 were the most significant from a statistical standpoint. They are: 1) the compliant children had more fantasy responses in

TABLE 7

Comparisons Between Four Compliant and Four Noncompliant Preschool Children

	Low Compliance ($N=4$)	High Compliance ($N=4$)	
	Means	Means	L.o.c.
1) No fantasy Rs	134.25	210.00	5%
2) % aggression of all nonstereo	57.25	33.00	15%
3) commands of all nonstereo	4.00	25.75	9%
4) % "outside school" theme	15.50	2.45	7%
5) % S involves E	15.25	3.25	1%
6) % Total tangentiality	19.75	10.50	5%

constructive stimulation are not necessarily rated as showing affectionate attachment to the teacher or as having high social effectiveness with other children. This result seemed to justify the treatment of the scales as measures of different behavior aspects.

COMPARISONS BASED ON CONSPICUOUS EXTREMES OF SOCIAL BEHAVIOR

1) Compliant and Noncompliant Children

For comparison of the play fantasies of compliant and noncompliant children, two groups of four subjects were selected. These were composed of the boy and the girl with the highest and

general; 2) the resistive, noncompliant children were more nonthematically tangential; 3) the resistive, noncompliant children involved the experimenter in their fantasies more often (i.e., they showed most clearly the behavioral manifestations of "transference").

There were also statistically less significant tendencies for: 4) the *compliant* child to have a greater proportion of thematic commands; 5) the *noncompliant* child to elaborate more on themes "outside of school," and 6) to show more fantasy-aggression than the compliant child.

The psychological significance of these differences between school-obedient and school-rebellious children is problematical. The preponderance of thematic commanding of the obedient child may be symptomatic of fear of authority (anticipation of punishment) expressed in ways similar to the expression of anticipation of injury by identification with the aggressor (27). Here, the demands of authority are no longer in the external environment only; the child himself demands and forbids. This can be taken as a sign of progressing socialization. Of interest in relation to this suggestion is the further finding (cf. p. 95) that a group of children who showed no occurrence of fantasy-aggression against the teacher doll were significantly more compliant in actual school behavior than the children who were conspicuous with respect to the great amount of fantasy-aggression they showed against the teacher doll. Identification-with-authority it seems competes more successfully as a preferred conflict-solution with overt aggressive action in compliant children than in noncompliant children.

The disobedient child's more frequent thematic elaborations of nonschool themes may be expressive of avoidance motivation of the school situation; his frequent attempts to involve the experimenter in his play may express his appreciation of and need for a relationship with a sympathetic nonauthoritative adult.

2) Well Adjusted and Poorly Adjusted Children

An "all-around-school adjustment" score was derived by averaging the scores on Scale I (Routine resistance), Scale II (Acceptance of teacher's guidance), and Scale III (Social Effectiveness). The highest scoring and the lowest scor-

ing boy and girl pair in each preschool age group were combined to form extreme groups of the four least adjusted and the four most adjusted children. Mean differences in thematic responses were then computed. The four children making up the well adjusted group were described on the scales as: "actively entering into routine duties, readily accepting guiding stimulus extended by the teacher," and "other children willingly cooperate with them whenever they attempt some action involving other children." The four poorly adjusted children were characterized on the scales by the teachers as: "strongly resisting and fighting against having to do routine duties, rejection of most of teacher's suggestions, avoidance of guidance stimulus, and "other children tend to refuse whatever the child wants or suggests."

In a comparison of means on 12 different fantasy measures, (including thematic aggression, toilet and sex themes) only one significant difference (l.o.c. 3%) between means was found: the well adjusted children produced a greater quantity of thematic responses regardless of content. Any motivational interpretation of this result is however vitiated by the fact that the better adjusted children were on the average four months older chronologically and 11.5 months older mentally.

However, a trial by trial comparison revealed a statistically significant difference in the progressive decrease in stereotyped fantasies. This is of considerable psychological interest, since the finding contradicts the decidedly downward trend of the total experimental group. Table 8 shows that, whereas the well adjusted children steadily decreased in proportion of stereotyped fantasy, (as did the group as a whole; see Fig. 3), the poorly adjusted children, often having

performed identically with the others in the first trial, became *more* instead of less stereotyped during the second trial. The mean difference in the proportion between the two groups at the end of the second trial is statistically significant below the 2% l.o.c.

tionship between overt aggression and fantasy aggression. The analyses reported below throw some light on this matter.

On the basis of the ratings made by the teachers on Scale IV, the 35 subjects were divided into three groups:

Group ND. *Normal Destructive:* The

TABLE 8

Differences in Session by Session Changes in Proportion of Stereotype Fantasy Between Well Adjusted and Poorly Adjusted Children

	% Stereotyped Fantasy Rs			
	Session I	Session II	Session III	Session IV
Low Adjustment Group	69.6	86.5*	63.8	47.6
High Adjustment Group	69.1	61.1*	56.2	43.0

* Difference: 25.4; t = 3.12; l.o.c. = 2%.

Qualitative observations of this phenomena gave some indication of the development of feelings of insecurity about showing unorthodox elaborations of school life, although, as was demonstrated during the first play session, the tendency toward unorthodox elaborations existed initially. Guilt feeling which apparently aroused fear that the experimenter would betray the child to the teacher or parent might have been the inhibitory factor; it is probable that children with poor school adjustment suffer more corrective stimulation and hence would be more responsive to guilt feelings.

3) *Destructively Aggressive Children*

The great frequency of hostility in the play fantasies of young children, and its variety in content, form, direction and emotional intensity (47), have led to the suggestion that doll play techniques are particularly adapted to the study of childhood aggression (82). The present population exhibited much fantasy aggression, as was shown in the summary of the data reported in Chapter III, and the problem arises as to what is the rela-

9 children who were rated by one or both teachers as habitually showing "normal amounts of destructive aggression". Of these nine, 6 belong to age class IV, and 3 to the younger class III; 7 were girls and 2 were boys (one boy from each age class).

Group WD. *Weak Destructive:* The 12 children who were rated by *both* of their teachers as showing habitually either "extremely little destructive aggression" or as being "weak in destructive aggression." Of these 12, 3 belonged to class IV, and 9 to class III; 5 were girls and 7 were boys (2 of the boys belonged to class IV).

Group SD. *Strong Destructive:* The 14 children who were rated by *both* of their teachers as either habitually showing "extremely destructive aggression" or as being "strong in destructive aggression." Of these 14, 6 belong to class IV, and 8 to class III; 3 were girls and 11 were boys (5 of the boys belonged to class IV).

In order to determine whether these differences in overt destructive aggression in the preschool were reflected by thematic acts of aggression in the doll

play, mean comparisons were made between the three groups in terms of absolute and relative amounts of thematic aggression. The result of these comparisons are presented in Table 9.

No appreciable difference existed between the strong destructive and the weak destructive groups on either index of thematic aggression.

Since the interpretation of this result is made difficult by unequal sex group-

The result confirms the qualitative description of individual cases made by Rogerson (67, P. 52), who observed: "Not all children show this need to express aggressiveness. Those who did appear to be of two types: the child whose behavior . . . suggested that he was endowed with a great deal of aggressiveness, and secondly the timid child. . . ."

The similarity between the WD and SD groups in amount of thematic ag-

TABLE 9

Mean Differences in Total Fantasy Aggression Between Overtly Normal Destructive (ND), Weak Destructive (WD), and Strong Destructive (SD) Children

Thematic Measures	ND Group	WD Group	SD Group	Differences WD−SD	l.o.c. by t
All Subjects (N=35)	(N=9)	(N=12)	(N=14)		
1) Raw Doll Act Aggressions	12.5#	31.25	42.1	10.85	45%
2) % Aggression of all nonstereo	27.2#	51.8#	51.4	0.40	—
3) % Aggression of all doll acts	8.2#	23.2#	26.2	3.00	—
Males Only (N=20)	(N=2)	(N=7)	(N=11)		
4) Raw Doll Act Aggressions	30.5	34.86	48.8	14.06	55%
5) % Aggression of all nonstereo	37.7#	62.87#	56.35	6.52	—
6) % Aggression of all doll acts	16.4	26.06	30.69	4.63	—
Females only (N=15)	(N=7)	(N=5)	(N=3)		
7) Raw Doll Act Aggressions	7.4#	26.2#	17.7	8.5	40%
8) % Aggression of all nonstereo	24.33	36.40	33.33	3.07	—
9) % Aggression of all doll acts	5.89#	15.76	9.72	6.04	40%

Differences between the Normal Destructive (ND) and either of WD or SD, when marked #, are significant below 5% l.o.c. by t.

ings, the differences were analysed separately for each sex. For each subgroup, approximately the same relationships were found within each sex as were found for the group as a whole.[11]

[11] The group (ND) showing more normal amounts of destructive aggression in overt behavior is sharply differentiated from both extreme groups; the difference in amount of thematic aggression is significant in both directions at the 1% level for the relative measure. This differentiation is difficult to interpret with the data at hand because the ND group is more heavily weighted with girls than are the WD and SD groups. Although the two boys in this ND group do show less thematic aggression than do the boys in the other two groups, sex differences would provide a similar

gression expressed in doll play raises an interesting problem. Evidently the fantasy activity does not in this instance provide an accurate sample of the child's actual behavior. Much of the clinical literature on play therapy (45, 67), however, suggests that the doll play serves as a medium in which the child can release inhibitions that have developed through punishment in everyday living.

relationship. It is therefore impossible to isolate the differential effects of sex and of overt aggression with respect to thematic aggression of the "normal" group. A further experimental inquiry into this trend is indicated.

It is also frequently suggested (66) that subjects who show much fantasy aggression repress their aggressive tendencies in reality. If such interpretations are correct, an hypothesis may be formed with reference to the present paradoxical data.

It may be supposed that the WD and the SD groups were equal in the extent to which they had been previously frustrated in their daily living. If this were true, the two groups would have equal instigation to aggression (20, p. 28-32). Let it be supposed further, however, that the children composing the WD group had had considerable punishment for manifesting overt aggressive destructive behavior, and that their overt aggressive behavior had undergone strong inhibition.

If this were an accurate description of the dynamics of the two groups' aggressive behavior, three consequences would be expected to ensue. (1) Since the customary social inhibitory stimuli to aggressive behavior were largely absent in the doll play situation, there would be little interference with aggressive responses in the WD groups. The two groups (WD and SD) would therefore express nearly equal total amounts of aggression in fantasy themes. This has been shown to be true.

(2) Since there was an experimenter in the room, and since the inhibited children would possess learned inhibitory responses to the teacher-child stimulus context in the doll play (by stimulus generalization from actual teacher-child relations), there would be greater inhibition of aggressive fantasy in the WD group than in the SD group *at the beginning* of the doll play procedures. But since any learned inhibitions were weaker in the SD group than in the WD group (by hypothesis), experimental ex-

tinction of anxiety (due to E's stimulation) would occur more rapidly in them than in the WD group once the doll play had started. Thus, it would be expected that a curve constructed from frequency of aggressive responses per trial would rise more rapidly for SD than for WD.

(3) According to the frustration-aggression hypothesis, aggression is a goal response to a secondary drive produced by frustration. If aggressive responses are inhibited, the strength of this instigation increases as a result of continuing frustration of nonaggressive drives and the frustration of the aggressive goal responses themselves (20, p. 31-55). By definition, the occurrence of a goal response reduces the strength of instigation to it; in this instance, everything else being equal, aggressive behavior would reduce the probability of occurrence of further aggressive behavior. If this set of relationships is applied to the WD and SD groups, it becomes apparent that the SD group should have less instigation to aggression at the end of the series of doll play trials than the WD group because (a) in everyday living its members express more aggression (goal responses), and (b) during the first trials at doll play they express more (assuming that the second deduction given above is true.) Hence, the WD group would be expected to show *greater* frequency of aggression on *later* trials than the SD group.[12]

The data on frequency of aggression in the doll play have been tabulated on a

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[12] This is, in effect, a theoretical derivation of "catharsis." The two deductions together may be paraphrased: children who are ordinarily inhibited in expressing their aggression build up greater aggressive drive; in the doll play, their inhibition only gradually breaks down, but in the end they are more aggressive than their less inhibited comrades.

trial-by-trial basis to test these two latter deductions. The results are presented in Table 10 and Figure 6. The measure of aggression is the mean relative frequency of aggressive responses per session.

Although far from substantiating convincingly both hypotheses, the differences observed are in the predicted directions.

of quantitative exactness at the present time.

4) Children's Preferences

To determine in what ways every day preferences are thematically expressed, the subjects were divided into activity preference groups according to the rat-

TABLE 10

Session by Session Comparisons of Fantasy Aggression Between Normal—(ND), Weak-(WD), Strong-Destructive (SD) Groups

Fantasy Rs	Overt Aggression Groups	Play Sessions			
		I	II	III	IV
Average % Fantasy	ND	4.2	5.9	10.3	12.5
aggression of all	WD	4.1	15.4	29.9	43.2
responses	SD	9.5	16.2	36.3	42.8

rections. The WD groups showed less aggression than the SD group in the first session but surpassed it in the last session.[13]

Neither the empirical findings nor the theory permit a judgment as to exact quantitative relationships to be expected. The actual amounts of aggressive behavior in the two groups are a function of the absolute strengths of the instigation to aggression, the inhibition of aggression, and the rate of extinction of inhibition produced by the experimental conditions. None of these values is determinable with a sufficient degree

ings on Scale VI. Children who were rated as having habitual preferences for music, art, block-play, and "hiding and chasing" were compared with the children not so checked, with respect to fantasies related in thematic content to the particular preference in question.

In all 12 comparisons made, the children having a given preference elaborated the corresponding themes more extensively than did the children who did not have the preference. However, because of large variability in the relevant fantasy measures, none of the twelve analysed mean differences was statistically significant below the 10% l.o.c.

If subsequent research with larger samples and improved experimental conditions validates these provisioned findings, the distinction between simple thematic elaboration and thematic elaboration of hostile-aggressive quality may prove diagnostically useful. The interpretation would be that environmental stimulus conditions associated with satisfaction are elaborated as simple

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[13] According to the principle of reinforcement (37, 55), any reduction in strength of instigation caused by the occurrence of overt aggression strengthens the power of stimuli which are present at the moment of aggressive response to elicit, on future occasions, further aggression. Applying this principle to the two groups it can be predicted that if the play sessions were continued long enough to reduce the "secondary drive aggression" to the same level in both groups, the WD group should eventually again drop below the SD group in amount of thematic aggression. This hypothesis does not apply to the present conditions, since trials were discontinued at a stage too early for the predicted phenomenon to occur.
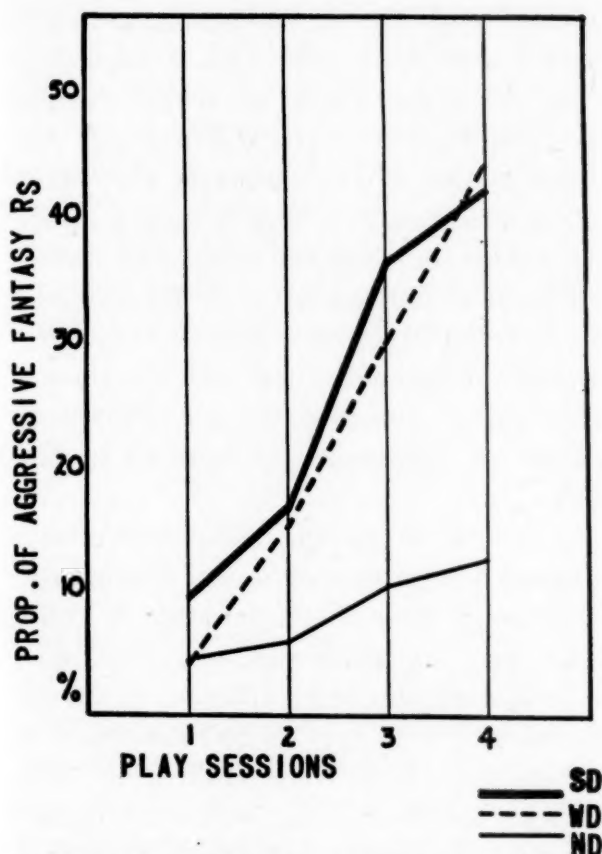
FIG. 6. Differences and similarities in fantasy-aggression between overtly strong-, weak-, and normal-destructive groups—SD, WD, ND.

2. Fantasy aggression in general

3. Fantasy aggression directed against authority

4. Thematic escape (hiding, chasing)

5. Sexual fantasy

6. Toilet themes

7. Individualistic 'unclassified' fantasies

8. Intensity of emotional involvement

9. Identification

Of 86 comparisons (55 on overt social behavior ratings, 16 on maturity variables, 14 on experimental measures other than fantasy) 14 revealed large differences, statistically significant below the 5% l.o.c.

1. *Conspicuous Stereotypy.* A group of 4 children with 40% or less stereotypy was compared with the 6 children with 75% or more stereotypy. 11 comparative analyses resulted in the two significant differences shown in Table 11.

The results show that (1) the conspicu-

TABLE 11

	Low Stereotypy		High Stereotypy		l.o.c.
	Mean	S.D.	Mean	S.D.	
Routine Compliance (Scale I)..	42.5	7.8	55.6	7.5	5%
Emotional Involvement.......	63.8	4.7	40.0	13.1	2%

routine or stereotyped themes, while that part of the child's environment associated with interferences is elaborated in hostile ways (Cf. Chap. IV).

COMPARISONS BASED ON CONSPICUOUS EXTREMES OF FANTASY RESPONSE

To determine the predictive efficiency of play fantasy measures, analysis was made of the differences in actual social behavior between small groups extreme with respect to the following nine experimental measures:

1. Stereotypy vs. nonstereotypy

ously stereotyped subjects were more overtly compliant than were the conspicuously nonstereotyped subjects; (2) the stereotyped subjects were considerably less involved emotionally in their thematic play than were the nonstereotyped subjects.[14] These results tend to be in line with Greig's (33) suggestion that ritual play stereotypy is symptomatic of compulsive avoidance of emotional in-

[14] Of comparative interest is Rosenzweig and Shakow's (68) observation that paranoid adult patients reflect their uncompromising and formalistic personality characteristics in dollplay experiments by great stereotypy.

volvement, and that the very obedient child can not play out his fantasies as freely as does the rebellious child. (However, there is no clear evidence for the further hypothesis that play-stereotypy, per se, is a sign of anxiety.)

2. *Fantasy Aggression.* The group of 7 children with a conspicuously high proportion of fantasy aggression (more than 33% of the total thematic production) was found in 6 behavior comparisons significantly less compliant (Scale I) than the 4 children who showed less then 5% fantasy aggression. It is, however, impossible to say from this comparison whether or not conspicuous thematic aggression is predictive of actual overt noncompliance because all children high in fantasy aggression were boys and all those conspicuously low in fantasy aggression were girls. As was to be expected from the previously reported results (cf. page 82) all of the high fantasy aggression group were overtly either very destructively aggressive (N=4), or very mild in destructive aggression (N = 3), all in low fantasy aggression group were rated as 'normal' in overt destructive aggression.

A further significant difference between the two fantasy aggression groups was a greater emotional involvement on the part of the thematically very aggressive children. Since no sex difference existed with respect to this measure of emotional involvement, the finding may represent a true response concomitant of intensive fantasy aggression.

3. *Fantasy Aggression Against Authority.* Four children who showed fantasy aggression, but none directed against "the teacher," were compared on four behavior dimensions with a group of 4 children in whose dramatic play the teacher received more than 50% of all thematic aggression. The former were more compliant to the teachers in the actual preschool (2% l.o.c.). Identification with the agent of authority may account for this relationship (cf. p. 80). The noncompliant children for whom teacher commands were strongly associated with social interference stimulation elaborated the teacher role in a hostile way, a finding which supports the previously suggested generalization that frustrating aspects in the social environment are aggressively elaborated in fantasy.

4. *Thematic Escape.* Six children who showed a high proportion of hiding and chasing in their thematic content (more than 33% of nonstereotyped responses) were not significantly different from the 5 children with very little recurrence of the escape theme (less than 5%) with respect to any of the seven compared measures of overt behavior. However, none of the children in the low group had been rated as preferring hiding and chasing in the actual preschool, whereas three (50%) of the high group were reported by the teacher as liking to hide in closets and chase other children.

The present evidence is not in support of the hypothesis that conspicuous escape fantasy is symptomatic of situational anxiety (47). Children with high proportions of escape fantasy are not at all differentiated from children with little escape fantasy with respect to tangentiality which, it has been suggested, is also symptomatic of situational anxiety.

Table 12 shows that with respect to both chronological and mental age the two groups are significantly differentiated, the group with conspicuously high proportion of escape fantasy being older both chronologically and mentally.

A further significant difference be-

tween the two groups was found with respect to sexual fantasy, the high-escape group showing significantly less than the low-escape group. The combination of these findings suggests that, with mental maturity and socialization, shifts occur from infantile thematic sexuality to other forms of fantasy expression. This raises the hope that it will eventually be

to both chronological and mental age, the highly sexual group being both chronologically and mentally younger than the nonsexual group. This finding is in line with the interpretation just given of the maturity differences found in the analysis of thematic escape behavior.

In view of the importance which is placed in psychoanalytic theory on the

TABLE 12

| | 5% or less Escape Fantasy | | 33% or more Escape Fantasy | | |
	Mean	S.D.	Mean	S.D.	l.o.c.
Chronological age (mos.)......	46.4	6.4	57.0	6.1	3%
Mental age (mos.)............	55.4	6.5	71.8	8.8	2%
Proportion of sexual fantasies..	8.0	5.3	1.7	2.8	5%

possible to objectively determine motivational developments through elicitation and analysis of children's play fantasies. The present findings are supported by further results on sexual fantasies and toilet themes reported below.

5. *Sexual Fantasies.* The definition of fantasy sexuality, given in the Observer's Manual is comparable to what Rosenzweig and Shakow (68) have called "exploring".[15] These authors found interesting differences between differrent types of *adult psychotics* with respect to the preponderance of thematic sexuality. In the present population of *normal children, no* significant differences in 7 kinds of overt behavior were found between a group of 7 subjects who showed no thematic sexuality whatever and 5 children who showed a conspicuously large proportion (more than 15%). However, significant differences were again found between these two groups with respect

proper development of infantile sexuality (73), the finding of a lack of a differentiation between the highly sexual and the nonsexual groups with respect to overt social adjustment (especially social effectiveness, Scale IV), assumes special significance. It is, however, quite possible that the basic motivational factors are the same in children who conspicuously show thematic sexuality and those who do not. The difference may simply be one of conscious inhibition resulting from the specificity, generality and effectiveness of parental instructions as to the tabooness or not-tabooness of showing interest in sex matters (15).

6. *Conspicuous Elaboration of Toilet Themes.* No significant differences were found in 7 overt behavior comparisons between 4 children who showed a conspicuously high proportion of thematic toilet theme elaborations (20%) and 4 in whose dramatic play the toilet theme occurred infrequently (less than 5%). But again, the children with little or no elaboration of the toilet theme averaged 19.3 months older in M.A. The difference in C.A. was not significant (average

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[15] (68, Pp. 41): "Either looking over the dolls with an obviously sexual interest, e.g., lifting the dresses of the females and examining the genital region, or any other close scrutiny as if to satisfy some curiosity about the (body) structure."

= 6 months). This finding is in further support of the maturity (socialization) hypothesis.

7. *Unclassified Individualistic Fantasy.* Two groups of 6 children each, one showing less than 1% of "unclassified" thematic productions and the other showing at least 10%, were compared on 10 different overt behavior and maturity measures. The analyses did not discover any significant differences.

8. *Intensity of Emotional Involvement.* Although emotional involvement is not in itself a fantasy response, it is nevertheless of considerable interest in play behavior. Nine behavior comparisons were made between a group of 5 children who were rated as "deeply involved" during the experimental play session, and a group of 7 who were rated as "detached, matter-of-fact." *The two groups were found to be differentiated with respect to their actual emotional relationship to both of their teachers,* who rated (Scale III) the emotionally highly involved children as having "strong affectionate attachment" to the teachers, and the emotionally neutral or indifferent" to the teachers. This behavior difference was statistically significant below the 5% l.o.c.

This finding suggests the importance of a child's tendency to reject adults. During projective technique procedures a more or less intimate adult-child relationship is unavoidable. Children who tend to reject adults in real life generalize their rejection to the adult experimenter; this evidently makes it difficult for them, at least in the active type of play technique, from becoming deeply involved during the play session.

9. *Identification.* During the experimental sessions, both E and the observer made notations of the occurrence of simple identification responses. These were provisionally defined as: using spontaneously and repeatedly the pronoun "I" with reference to actions and experiences of a particular doll; unambiguous acceptance of official identification stimulation; defending the same doll frequently against unfavorable conditions and giving it preference in executing pleasurable acts; pretending to be one of the doll characters and naming it consistently by own name.

It was found that 14 out of 35 children showed these particular signs of identification rather consistently. Three of these (girls) showed identification with the teacher doll. Ten children showed definite rejection of identification, not only when the initial identification stimulation was presented at the beginning of every trial, but also spontaneously during the rest of the trials; this was shown for example by the child's insistence upon using an impersonal way of describing the dolls as something quite apart from himself (e.g., "those kids", "those guys", instead of "I", "me" and "we".) For the 11 remaining children, the symptoms were either ambiguous, or inconsistent.

Of the 14 children who showed positive evidence of identification, 7 were girls and 7 were boys. Of the 10 subjects who showed resistance to identification, 2 were girls and 8 were boys.

Although the reliability of these judgments is not definitely known, the importance of identification seemed to justify a preliminary analysis of any differences between the identifiers and nonidentifiers which may exist with reference to either thematic responses or overt behavior. Since there was an unequal sex distribution, the comparisons were made between the 7 boys who did identify and the 8 boys who refused to identify. The two groups were compared on 20 different measures. The results are summarized below:

First, some indication of the validity of the judgments of identification lies in the fact that the children who identified showed a significantly smaller proportion of fantasy aggression directed against the "identification-doll" than did those who refused to identify.

Secondly, the thematic responses of the identifiers were more closely related to actual behavior than were those of children who refused to identify; the former group had a significantly higher mean proportional thematic elaboration of content related to activities preferred in preschool (as rated on Scale IV). This difference was significant below the 1% l.o.c. The two groups were not equated with respect to the type of activities for which each child was judged as having a preference. Of incidental interest is the finding that on no other actual behavior measure were the two identification, nonidentification groups significantly differentiated.

Thirdly, it is of methodological significance that when these two groups were compared with respect to various types of fantasy measures, rather than overt behavior measures, the children who refused to identify showed significantly fewer "nasty" fantasies; they elaborated the toilet theme less and showed less hostile aggression within these themes than did the children who identified. They also tended to be less emotionally involved. These last findings suggest that when the child is made consciously aware of the identification through verbal "identification-stimulation" he tends to reject this behavior and that it then becomes associated with failure to lose inhibitions. This would support the contention by Solomon (74) concerning opportunity for anonymity as far as play technique is concerned. It is plausible that even spontaneously occurring identification, *when recognized by S*, would lead to inhibition on the theory that conscious identification increases the similarity between real social situations and fantasy doll situations; this would facilitate generalization of inhibition from social experiences to thematic play behavior.

Fourthly, it was observed, that identification behavior was by no means uniform. Identification of the self, the simple "I"-type of identification, was only one of various forms of possible subject-doll character relationships. These relationships can be described as role-taking behaviors (57) and four different types were observed to occur frequently:

(1) The child may assign himself a role without the use of any toy material, e.g., S may assume directly the role of "head teacher" who is not otherwise represented by any doll character.

(2) Also, without the use of a doll, S may regard E as having a certain role in the doll drama, say "the father" or "the janitor"; S may then identify himself with that role.

(3) The child may identify with a character role which he has created and assigned to a doll, the model of the creation being either S himself or a character representing some other real or fictitious person or object.

(4) The child may assume no imaginary character role, rather he simply directs the social characters of his play world in which he is not himself a persona dramatica.

These various quasi-social relationships between the child and his fantasy-characters were observed to be rather fluctuating, the child now assuming this, a moment later, that relationship. The question arises of whether preference for one behavioral mode of identification over another has any motivational significance, but the present data did not afford a clear answer. However, there seemed to be no doubt that the particular way in which the child relates himself to the imaginary social persons is a factor in determining the degree to which his play *projects* his *own* motivations and actions rather than social perceptions of other persons or previously structured reproductions of non-personal fiction. In the light of this conclusion it seems that the assumption of projection, made by many clinical workers, expressed for example, by the statement that . . . "if the child says the little doll is angry . . . in a given setting, the patient also reacts in a corresponding way in real life situations" (74, p. 481) has only validity under certain conditions of identification.

A N ATTEMPT was made in the present research to fulfill the following objectives:

1. The design and explicit description of a doll play technique which would permit quantitative study of young children's fantasies.

2. The establishment of some normative frames of reference concerning amount and type of thematic play behavior of young children.

3. To discover whether and in what ways systematic stimulus variables in the child's environment causally influence projective fantasies.

4. To contribute data concerning the validity, i.e., the predictive efficiency, of experimentally or clinically elicited play fantasy.

The standardized play technique which was developed made use of a stylized doll house that simulated the actual preschool environment of the subjects, University of Iowa Preschool children. The technique made use of carefully standardized experimenter-child interactions, and emphasized the process of focusing fantasy response on social aspects within a predetermined general theme. This technique made possible a method of recording a child's behavior which was both objective and quantitative; reliability was established by agreement between independent observers.

The data gathered under these conditions were selectively analysed from three points of view: 1) normative facts, 2) systematic stimulus-response relationships, and 3) relationship between fantasy and actual behavior.

The major findings of these analyses were:

1. These normal children produced intensively aggressive fantasies. Individual differences in amount and type of fantasies produced were great, the amount being somewhat influenced by maturity factors. Over 75% of the thematic responses were reproductive of realistic conditions in the child's everyday environment.

2. Profound differences in type and amount of play fantasies existed between the sexes, the girls showing greater productivity, but also greater "nicety," more stereotypy and a greater reluctance to give up stereotyped thematic behavior with repetition of play sessions, while the boys showed significantly more thematic aggression.

3. Two groups of children, differentiated with respect to amount of interference stimulation (in terms of length of play interruption due to a routine of resting in the preschool), were compared with respect to the content of their fantasies. It was found that the group which was subjected to the longer rest routine (greater frustration) elaborated the rest theme significantly more often and in more aggressive ways than did the group which had only a brief rest routine (less frustration).

4. On the basis of teacher's ratings the subjects' actual social behavior and adjustment were known and these data were compared with various fantasy measures. The following statements summarize the relations discovered:

a. Compliant children had more elaborate fantasies about school; the resistive, noncompliant children were significantly more tangential and showed stronger behavioral manifestations of a positive transference relationship to the experimenter.

b. The rate of progressive decrease, through 4 play sessions, in stereotyped

fantasy differentiated well adjusted from poorly adjusted children.

c. Both the overtly destructive-aggressive child and the child characterized in his daily behavior by the absence of overt aggression showed the same great amount of fantasy-aggression, whereas less extreme, the normally aggressive child showed less thematic aggression than did either of the two extremes.

d. Children who showed very stereotyped fantasies remained emotionally less involved than did children showing a larger proportion of nonstereotyped thematic behavior; they were also more compliant in actual behavior.

e. Children who elaborated thematic aggressions against the teacher were, in actual behavior, significantly less compliant to the teachers than were children who showed no fantasy-aggression against the teacher.

f. Children who showed conspicuous elaborations of sexual and toilet themes were significantly younger in M. A. than children who did not elaborate these themes; the latter showed a high proportion of hiding and chasing in their thematic content.

g. The children who were emotionally highly involved in their fantasy productions had more affectionate relationships with the teachers than did children whose emotional involvement during the experimental play sessions was low.

h. A closer correspondence between fantasy behavior and actual behavior was found with those children who "identified" during projective play than with those who refused to "identify."

These various findings led to some more general conclusions.

It is possible to elicit projective play fantasies in young children by standardized procedures. It is possible reliably and objectively to count and classify these fantasies. Certain contents of projective fantasy and the way in which they are behaviorally expressed are, first, a function of certain objectively describable stimulus and reward conditions in the child's social environment, and second, have detectable relations to actual social behavior and adjustment. These facts give promise of an eventual development of doll play techniques into standardized test and reeducation tools for clinical and research purposes in the field of personality development.

Of primary theoretical importance is the fact that it was here possible to formulate the problems and to derive the results on thematic sex differences, on thematic reaction to environmental interference, and on fantasy aggression, from the facts and principles of social learning and social action.

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APPENDIX

APPENDIX

MANUAL FOR THE OBSERVER OF PROJECTIVE PLAY BEHAVIOR

The recording blank: (see sample); the record contains four identical diagrams which represent ground plans of the doll house. Obs. records "doll-actions" and "doll-experiences" with appropriate symbols into these ground plans for each of the four doll characters separately. In the remaining sections of the recording blank Obs. records behavior other than fantasy and also the verbal stimulation of S by E.

Time Units: One record is used for a 2 minute period. Recording of observations begins following a prearranged signal from E and terminates after the eighth 2 minute record is completed.

DEFINITIONS OF CATEGORIES AND SYMBOLS.

A. *S's nonthematic behavior.*

1. *S' (Experimentally-Tangential) Responses*

   Main criterion for classifying a unit of action into this category: "Any action on the part of S which is connected with some part of the doll-equipment but which appears not to be 'governed by' or *not* in some meaningful way associated with a story, dramatization or theme in which the dolls appear to have 'living-character roles'". (See below)

   When *S manipulates* "nonthematically" doll equipment either in the nature of "reality play" or in the nature of "sheer manipulation" mark

   P such an action by letter P (for "manipulative play").

   When in the course of nonthematic *explorations* of dolls and dollhouse as "equipment" or "toy" S questions or remarks to E concerning the function origin, movability of the doll-equipment mark such an action by

   I letter I (for "*tangential information*").

   When S by questioning of E demands of the equipment some function which it in fact does not provide, or when S demands of E additional equipment

X mark such an action by letter X ("*extention of facilities*").

   When S verbally praises or admires the doll equipment as "beautiful toys"

A mark such an action by letter A (for "*Admiration* of equipment").

   When S tends to, or actually acts aggressively (destructively) toward any part of the doll-equipment as equipment, (not as "character's" or "fantasy environment") or when S' verbal responses portray a desire towards such

H₂ action, mark such an action by letter H₂ (for "*Hostility, aggression* against equipment").

2. *S' Not-Experimental (Tangential) Responses:*

   Main criterion for classifying a unit of action in this category: same as for above, in addition S does *not* even manipulate any part of the experimental equipment.

   When S behaves in some *tangential* way not connected with the experimental doll-equipment (such as: walking over to window, asking E where the floor rug came from etc.) mark

   T such an action by letter T (for "general tangential behavior").

   When S behaves as in "T" (above), but when such action has some characteristic of "playing" (e.g., structure) which does not involve any experimental equipment (but may or not involve E) mark such an action by the

   Tₚ letter Tₚ (for "*tangential play*").

   When S expresses his desire to leave or to terminate the experimental "playing with E", mark such an action

   L by the letter L (for "tendency to leave experimental play").

   When S tends to act aggressively (destructively) towards objects in the room other than experimental doll-

   H₃ equipment mark letter H₃ (for "Hostility"). When such hostile action is directed against E mark "Hex".

3. *"S involves E".*

   When S is engaged in "thematic action" and THEN attempts to get E to participate (e.g., help in doll loco-

motions) or requests of E to furnish a theme, outcome, or turn in a story, mark such an action with a check under "S involves E".

S-E

B. *E's Verbal Stimulation of S.*

From the moment E has presented S with the general "Aufgabe": ("Now you can go ahead and play with the children any way you like to." "They can do anything they want to." "You go ahead and make up any play you like about what they do.") Observer classifies and notates EVERY explicit verbal stimulation E gives to S, with the following three exceptions:

(1) Rapport stimulation: generally encouraging *non-directive* comments in line of "good test rapport", personal conversations not related in content or psychologically to the "Aufgabe".

(2) Stimulation to be explicit verbally: E asks silent or subvocal, but thematically performing, S to "tell what the doll is doing".

(3) Substituting verbal explicitness for S: E repeats S' unclear verbalizations; or (in case child's body obstructs view of Observer) E describes verbally the doll acts shown silently by S.

Stimulation (1), (2), and (3) are not recorded. Stimulation (2) and (3) is used only to clarify thematic responses for recording purposes. All other verbal comments by E have to be classified and tallied on the record sheet under one of the following three categories:

I. *General Pressure Towards Thematic Production:* ("EPr-General")

When E gives explicitly an invitation, direction or suggestion to S in the direction of entering into (or continuing to) engage in thematic doll play without however suggesting any specific doll action, sub-theme or charcter elaboration beyond the general "preschool" theme, mark such a verbal stimulation with a check under "EPr-General".

II. *Specific Pressure:*

When E suggests (or demonstrates) to S a particular sub-theme (e.g.: "Let us pretend they all go and drink their juice now") or when he suggests an action of a particular character (e.g.: "What does the teacher do about it?") mark such verbal stimulations under EPr-specific using letter symbols appropriate to the content of the stimulations. (Thus: for the example of the juice drinking suggestion, mark: "LR" for the example of stimulating S to dramatize the teacher-doll, mark "t-d", etc.)

III. *Reinforcing (Anxiety Reducing) Stimulation:*

Whenever E by either explicit verbalization or by approving gestures (laughing, nodding, etc.) conveys to S that S need not fear disapproval for "unorthodox" doll-acts, check the occurrence of such "reinforcing" stimulation under "E's anxiety-reducing."

C. *Thematic Responses (Fantasies).*

In this section the Observer records and classifies "Doll actions and Doll experiences." "Doll actions and experiences" are fantasy responses on the part of S. That is, S pretends that the dolls are "living". It is for this reason that for methodological purposes it is possible to speak of the "dolls acting" and "dolls being acted upon". We are interested in studying what kinds of social persons the dolls are made out to be by S, what they do and what they experience.

Thus, as long as S is engaged in thematic play (dramatization of dolls, or of S in relation to dolls) each of the four dolls is considered, for purposes of notation, as a "character on a stage" whose actions and experiences can be classified in ways similar to psychological measurements of "real" actions and experiences.

1. *Psycho-spatial definition of Doll "locomotion" and "position".*

In order to enable Observer to record thematic content without taking "running account" but without losing data on continuity and theme-sequence, the ground-plan diagrams are provided on the record sheet, one for each of the four doll's actions and experiences.

There, themes are spatially represented by rooms or physical areas. A "preschool sub-theme", says "toileting", is spatially represented by the part of the ground plan labelled T. Observer notates that a doll action or experience occurred within a sub-theme by giving the doll a "position" in the proper spatial segment, using symbols describing the type of action involved. There are eleven such "sub-themes" within the major "preschool" theme, corresponding to following rooms and physically easily distinguishable areas (closets, yard, etc.) of the doll house: W: Washroom; T: Toilet; K: Kitchen; A: Art room; M: Music and Living room; B: General play room; Y: Play yard; C1 and C2: large closets; O: Outside preschool.

Doll actions which have a theme corresponding to one of these rooms or areas as a rule take place in the "proper" environment. The Observer simply reproduces physical states of affairs, HOWEVER THIS CONDITION IS NOT NECESSARY FOR MARKING A DOLL-ACTION WITHIN A GIVEN SUB-THEME! When, for example, S is actually holding a doll in her lap, but comments verbally that the "doll is resting with the other children" the doll would be marked in area "R" (rest) on the ground plan, and the letter "V" would be added to denote that the particular doll action was verbally related by S rather than physically executed. When we therefore use the terms "doll-locomotion" and "doll-position" we mean the physical-spatial aspect only as long as it does not contradict S's verbalized doll dramatizations. It will be found that discrepancies at the younger ages are very rare.

2. *Recording of Doll Locomotion, Position and "Role" Elaboration.*

Observer traces by pencil on the ground plan diagram the "locomotions" (see definition above) occurring for each of the four dolls separately. When the agent of the doll locomotion is S a solid line is used; when the agent is E a dotted line should be used. A point is marked for each doll at the beginning of each two-minute period. This point represents the position within (or outside of) the doll house-environment in which Observer ACTUALLY SEES the doll when observation is resumed.

When a doll at the moment of resuming observations is "activated" a line is added to the position-point and the direction indicated by a small arrow (thus: ⟶). The symbol which is put at the end of this line depends, of course, on the type of action. When a doll at the moment of resuming observations is not in some way activated by S (or described as being "in action" by S) no marking is added to the initial-position-point. When such an initially not-activated doll is later activated, the "synapse-notation" is then used (thus: ⟩——). This synapse notation always indicates that a doll was not continuously activated.

One of the necessary conditions for a doll-action to occur is the creation of a "role" within some detectable theme or story for any doll "in action." So long as a doll has no "living role" it is recorded as being "dramatically dead." Often, we have to do with dramatizations of short durations in which each doll is made by S to go through its role, after which S may drop the doll "dead" and seems to forget it for either a short while or for the rest of the play session. Whatever the length of such "dead" periods may be, whenever a doll is "dramatically not alive" it should be indicated by a small perpendicular dash at the end of the action-line (thus: ——|).

As long as a doll is "dramatically alive" ALL of its actions and "experiences" must be recorded and classified under one of the following "Doll-Action Categories."

3. *Categories for "Doll Action and Doll Experiences", Stereotyped Acts (See Fig. 1)*

A "stereotyped doll action or experience" is defined *generally* as: "a doll

action or experience in a given environmental setting (e.g.: a doll house room) which in content simulates habitual play and routine actions and experiences which for real preschool children would, because of their training, be "obviously apropriate" to that environmental setting."

In the real preschool the child has been trained to paint at easels in the art room; to take a nap in the bed room; to clean up in the wash room; to drink juice or eat lunch in the dining room; to listen to stories or look at books in art, music and other play rooms; to listen to music (piano or victrola), sing or dance in the music-living room; to play with blocks and other equipment in the general play room; to use the toilets properly; to keep his clothes in a certain place. Whenever doll actions or experiences simulate one of these "over-learned responses" in the environment in which they are appropriate (as just described) they are to be classified as "stereotyped" acts.

Two doll house sections, the kitchen and the closets, are not covered by the above definitions. The following arbitrary definitions of what constitutes stereotyped acts in these two environments are to be used: Closet: "taking materials (such as paints, books, aprons, toys)—all of course imaginary, out or into closets, "AND playing house" using the closet as "building". Kitchen: "Cooking lunch for the preschool children, preparing juice for them, using the ice-box, washing dishes."

("Obviously appropriate *social* doll-doll interactions are "stereotyped" but are recorded under a separate category. Because similar social acts are of course appropriate in different doll environments.)

Degrees of Elaboration of "Stereotyped Acts"

Stereotyped acts are notated by one of the following three symbols depending on the amount of elaboration with which the doll action is performed:

When the doll-action is elaborated by means of actual "doll movements" brought about by manipulation of doll's arms etc. by S and/or by verbal comments the symbol (x) is used. When the doll-action is in the nature of "being simply alive" in an environment in which a more elaborate appropriate action could take place (such as "standing or sitting around") a point-symbol (.) is used; when S puts the doll into a static pose representing, to to speak, the appropriate motions by a "still" which is without either manipulative or verbal elaboration, the triangle-symbol is used ($\triangle$). (x) represents the greatest amount of elaboration; (.) the least amount.

Stereotyped Doll-Doll Social Interactions

When during the performance of some stereotyped character-role a doll is verbally reported (by S) to perform a "stereotyped social action" directed at another doll or when a doll is actually manipulated (by S) in such a way as to show that it is performing a stereotyped social action directed at another doll, record such a doll-action by marking a circle-symbol (o) for every doll-character involved in the social doll-doll interaction. No distinction between initiator and recipient has to be made here.

A "stereotyped doll-doll social interaction" is defined as: "an instance of doll-doll social intercourse which is of a non-evaluative non-directive-neutral and/or routine nature, such as stereotype polite inquiries and greetings and cooperative actions of a routine nature e.g., (one doll goes around and hands paint materials to every character)."

Nonstereotyped Doll-Actions

Any doll-action which cannot be classified according to the definitions given so far is, by definition, classified as "special" and should be recorded under one of the following categories of "nonstereotyped acts."

Whenever a doll acts to injure, punish, or aggressively disparage another doll. or when it is the recipient of a dis-

paraging or injurious action; or when a doll acts intentionally destructive towards its "preschool-environment", mark such a doll-action by the letter
H(h) H(h) (for Hostility-Aggression).

"Opposite of H": When a doll's action denotes praise, reward, affection, intimacy, friendliness towards another doll-charcter, or when S behaves towards a doll as a character in such an approving, praising, affectionate or friendly manner, mark such an action
A(a) by the letter A (a) (for "affection").

When a verbal doll-doll or S-Doll action occurs of an imperative "commanding" nature, mark such an
D(d) action by the letter D (d) (for "giving directions and commands").

When Doll's bodies, especially sexual regions are deliberately investigated and/or manipulated mark such an
S(s) action with the letter S(s) (for "sexual curiosity").

When a doll is made to hide from or
E chase other dolls mark letter e or E respectively, e standing for hiding and escaping and E chasing.

When a (nonstereotyped) special doll action occurs which cannot be classified under one of the above categories of not-stereotyped actions, mark the
U(u) letter U (u) (for Unclassified special) and describe the content of such an action briefly under "Comments."

It should be noted that for all *special* categories a *distinction between the instigator and the recipient* of a non-stereotyped action is made. This is indicated by using the appropriate capital letter for the instigator and a small letter for the recipient-doll. If only a small letter is indicated it shall denote a special action from S to a doll-recipient. If a given special action was not directed towards any specific doll, use capital letter only. (It may in such a case be directed towards the environment or towards E or S.)

4. *Thematic Digressions from the General "Preschool" Theme. (Metamorphoses)*

It sometimes occurs that in spite of experimental "structuring" S "transforms" the preschool set-up momen-

tarily into something else such as "home", or "neighborhood". This is hardly ever done completely; rather, one or more doll-characters undergo momentarily a "Role-metamorphoses", such as the "teacher" turning into the "mother", the other children into siblings, the toilet into a "bathroom" etc. Whenever Observer denotes such a "metamorphosis" an "M" should be placed under the ground plan belonging to the relevant doll-action and the nature of the "transformation" briefly stated under "Comments."

D. *Definition of Units of Behavior.*

Whenever an action relevant to one or more of the selected behavior categories (described above) occurs, Observer enters a check or letter-notation on the record sheet.

What is a UNIT of behavior for the purpose of tallying? "Any relevant action on the part of S, dolls or E is denoted by ONE check when it is perceived by Observer as a relevant change from 'what has been going on', and when such an action has a duration of less than 10 seconds; when an action endures beyond the 10 second limit a "c" notation is added to the one check, denoting such action as "continuous". Any action is considered terminated when it is succeeded by or interfered with by a new action which in turn is perceived by Observer as a relevant change, or when it is followed by a pause (change due to 'no action') of at least 2 seconds duration." "In the case of the occurrence of a series of 'perceptually discrete' actions in the nature of repetitions of qualitatively similar responses, the series is denoted by one ONE check if the series does not endure beyond 10 seconds. When such a series endures beyond 10 seconds, the notation "c" is added to the check. Such a series is considered terminated when an action-member of the series is followed by a deliberate pause of at least 2 seconds or if some other relevant change in action content (quality) is perceived."

CF: Sample *observation blank: next page. End of Observer's Manual*

OBSERVER'S RECORD SHEET SHOWING GROUND PLANS OF THE DOLL HOUSE

SUBJECT: OBS: DATE: REC. NO: EXP.   CONDITION:

| Non-thematic-tangential(P,I,X,A,H) | Not-exp.-tangential(T,Tp,L,H) | S inv E | Epr-general | Epr-specific | E's-anx.-reduct |

D(Teacher)   N:

D(Project):   N: D:

N: D:

Room plans labelled: W, K, T, LR, A, R, B, M, Y

COMMENTS:

Fantasy-Scores:
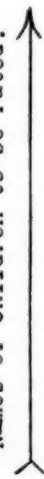
PRESCHOOL RATING SCALE 1.   Routine Resistance   Dimension extremes: Severe resistance........active compliance.
(For Groups II and III)

RATE THE CHILD'S INITIAL REACTION TENDENCY WHEN EXPECTED TO PERFORM A 'ROUTINE TASK'.
"Routines" are tasks having little or no play character, e.g., juice drinking and
eating, rest, toilet, dressing, undressing, keeping clean, etc. Take the average re-
action to all types of routines.

Consider only child's 'PRESENT BEHAVIOR'.
i.e., base ratings on observations made during
past six or eight school days.

Names of children to be rated:

This scale extends from o to o. Place an
X for every child anywhere between these
2 limits to represent your rating. Be-
havior descriptions aré given to exemplify
a few of the possible steps on a ROUTINE
RESISTANCE CONTINUM which ranges from
'severe resistance' to 'active compliance'.
Dashes, locating each behavior description
on this scale, serve as reference points,
but raters should not necessarily confine
their ratings to these reference points.

Further behavior descriptions to exemplify
ratings can be entered below by the rater.

Behavior Descriptions
(Cues for Ratings)

Ch strongly resists entering into routine duty;
overt attempts at fighting against having to
leave play for routine; needs much T's pressure.

Ch tends to resist as above but in a weaker way;
no aggressive attempts to 'fight routines', but
resistance shown by delaying actions, horse-play,
etc.

Ch's initial routine behavior is a mixture of
weak resistance and adequate compliance.

Ch complies when directed by T to enter routine
task without tendency to resist

Ch actively enters into routine duties "on his
own", i.e., when T merely indicates that 'it is
time for...'

Rater's Name _____

Date of Ratings: _____

CONSISTENCY: Rate how variable each Ch is in his
initial routine reactions as described by your
ratings: Very Consistent 1-2-3-4-5 Very Irregular
Comments: (if more space needed, use back of sheet)

Comments: (If more space needed, use back of sheet)

PRESCHOOL RATING SCALE II.   Acceptance of Guidance.   Dimension Extremes: Eager acceptance........Active Avoidance.
(For Groups II and III)

RATE CHILD'S IMMEDIATE REACTION TENDENCY TO ACCEPT, IGNORE OR REJECT YOUR
GENERAL GUIDANCE (i.e., suggestions, directions, approvals, disapprovals, teaching, during play activities)

Consider only Child's 'PRESENT BEHAVIOR'.
i.e., base ratings on observations made
during past 6 or 8 school days.

This scale extends from o to o. Place an
X for every child anywhere between the
2 limits to represent your rating. Be-
havior descriptions are given to exempli-
fy a few of the possible steps on a
GUIDANCE-ACCEPTANCE-AVOIDANCE CONTINUUM
which ranges from 'eager acceptance' to
'active avoidance'. Dashes locating each
behavior description on this scale, serve
as reference points, but rater should not
necessarily confine his ratings to them.

Names of Children to be Rated:

Further behavior descriptions to exemplify
ratings can be entered below by rater.

Behavior Descriptions
(Cues for Ratings)

Child gladly accepts guidance stimulation extended
to him by T; tends to immediately follow T's
suggestions, teachings, etc.

Child shows a matter-of-fact acceptance of guid-
ing stimulation; is ready to be positively in-
fluenced in his immediate actions.

Child tends to ignore guiding stimulation.

T's guidance, when offered, is frequently nega-
tively reacted to; Child mildly rejects many of
T's suggestions, teachings, etc.

Child rejects most of T's suggestions, teachings,
etc., Child tends to avoid receiving guidance
stimulation.

Rater's Name _____

Date of Ratings _____

CONSISTENCY: Rate how variable each Ch is in his
immediate reactions to guidance stimulation as
des.by your ratings:Very Consistent 1-2-3-4-5 Very Irregular.-
Comments: (if more space needed use back of sheet)

PRESCHOOL RATING SCALE III. Attachment to Teacher   Dimension-extremes: Seek Affection ....avoid affection.
(For Groups II and III)

RATE THE CHILD'S EMOTIONAL ATTACHMENT TO YOU AS A TEACHER.

Consider only Child's "present" behavior, i.e., base ratings only on observations made during the past six to eight school days!

Names of Children to be Rated:

This scale extends from o to o. Place an 'X' anywhere between these 2 limits to represent your rating. Behavior-Descriptions are given to exemplify a few steps on an "EMOTIONAL-ATTACHMENT-DETACHMENT" continuum which ranges from 'seeking affection' to 'avoiding affection'. Dashes locating each behavior-description on the scale, serve as reference points, but raters should not necessarily confine their ratings to these points!

Further behavior descriptions to exemplify ratings can be entered below by the rater.

Behavior Descriptions:
(Cues for Rating)

Child uses every opportunity to be extremely friendly and affectionate toward me

Child seems to have a strong (but less extreme and less 'demonstrative') affectionate attachment to me.

Child exhibits fondness of being handled in an affectionate, friendly or intimate way

Child appears to be emotionally neutral or indifferent towards me

Child seems not to particularly enjoy friendly-intimate contact with me.

Rater's Name _____

Date of Ratings: _____

CONSISTENCY: Rate how variable each Ch is in his emotional attachment to you as described by your ratings. Very Consistent 1-2-3-4-5 Very Irregular

Comments: (if more space needed, use back of sheet)

PRESCHOOL RATING SCALE IV. Social Effectiveness.   Dimension extremes: Extr. soc. effective and successful.....extr.soc.frustrated
(For Groups II and III)

RATE THE CHILD'S "SOCIAL SUCCESS" IN HIS PURPOSIVE CONTRACTS "ITH OTHER CHILDREN.
(Consider the question of how willingly other children cooperate with Ch when approached by him, how far he usually gets (or would get) without resort to aggression and/or T's intervention.

Consider only Ch's PRESENT BEHAVIOR, i.e., base ratings on obs. made during past 6 or 8 days.

Names of Children to be Rated →

This scale extends from o to o. Place an X anywhere between these 2 limits to represent your ratings. Behavior Descriptions are given to exemplify a few of the steps on a SOCIAL-SUCCESS-FRUSTRATION continuum which ranges from 'socially extremely successful' to 'socially extremely frustrated'. Dashes, locating each behavior description on this scale, serve as reference points, but raters should not necessarily confine their ratings to these points!

Further behavior descriptions to exemplify ratings can be entered below by the rater.

Behavior Descriptions:
(Cues for Rating)

Whenever Ch intends some action involving other children (Ch suggests, or has intention to participate, share, get toy, etc.) they willingly cooperate.

Child's 'social intentions' are more often cooperated with than they are refused by others.

Child is about as often successful (willingly cooperated with) as he is 'frustrated' (refused) in his purposive social contacts with other ch.

Ch's 'social intentions' are more frequently refused; usually has hard time getting others to cooperate with him.

Whenever Ch intends some action involving other children they do not willingly cooperate, rather they tend to refuse whatever Ch wants or suggests

Rater's Name _____

Date of Ratings _____

CONSISTENCY: Rate how variable each Child is in his social effectiveness as described by your rating. Very consistent 1-2-3-4-5 Very irregular
Comments: (if more space needed, use back of sheet)

PRESCHOOL RATING SCALE V: DESTRUCTIVE AGGRESSION.

Instructions to raters: Among the children listed below select those you know well enough to make the following judgment about them: How destructive-aggressive and hostile are they habitually in their relation to things (objects) and other persons (children and teachers) as shown by their overt day by day school behavior? By destructive-aggressive behavior is meant behavior towards others or towards objects (e.g., things built up by others) of an hostile or injurious nature, regardless of whether such overt depreciating behavior is usually "just verbal" or actual physical aggression. (Do NOT however confuse this definition of destructive-aggressive behavior with social ascendance or the tendency to dominate others which, of course, may or may not be of a destructive-aggressive nature.)

Place Each of the Children in *One* of the Five Degrees of Destructive Aggression

No.	Names of Subjects	Extremely little destructive agr.	"Weak" in destructive agr.	"Normal" amt. destr. agr.	"Strongly" destr. agr.	Extremely destructive agr.
Ex.	John D.					

PRESCHOOL RATING SCALE VI. Activity-Preferences
(For Groups II and III)

(Doll-DRAMATIZATION Experiment 1944)

BELOW IS A LIST OF "FREE-PLAY ACTIVITIES". ("Routine activities" are omitted.)
Check with a + sign for each child THE ONE, TWO OR THREE PLAY ACTIVITIES WHICH THE CHILD MOST EAGERLY OR MOST FREQUENTLY TENDS TO ENGAGE IN, SEEKS, OR CHOOSES WHEN CHILD IS RELATIVELY FREE TO DO WHAT HE INTENDS TO.

Consider only the Child's "PRESENT" Behavior Tendencies. i.e., base ratings on observations made during past six or eight school-days!

Names of Children to be Rated:

Judge whether Child generally prefers to play in Group or Alone or whether there are no clear preferences in this respect and mark G, A, or n respectively after each name where indicated.*

Comments on activity-preferences can be entered on this side (below).

Description of Activities   Mark either G, A, or n here.*

Indoor
Dancing, marching to music
Piano-play, listening
Singing in group around piano
Organized (n-led) group games(eg:"ring-around-rosy)
Play "house", mainly solitary
Play "house", mainly with other children
"Pure social play", mainly(when possible)with teacher
Pure social play constructive: party - telephoning"
Group-play:war,police,wild-west
Gang-play:no construct.idea,mainly "raising hell"
Chasing, hiding, escaping
Block-Play
Play with "mechanical" toys(trucks,planes,trains)
Woodshop-work
Art-work (painting or pasting)
Play with dolls, mainly solitary
Play with dolls, mainly with other children
Looking at, listening to: story books, pictures,etc.
Water-play in wash basin
Other play preferences (specify)

Outdoor
Social Group play (constructive) specify
Group Play:war, hunting,chasing, etc.
Playing "house", (with big boxes)
Motor activities on equipment (jungle, swings,etc.)
Playing with transportation-equiptm.(wagons,tricycles)
Water-centered play (pool)
Work-play (digging, raking, etc.)
Other outdoor play preferences (specify)

PRESCHOOL RATING SCALE VII.   Imaginative Playing   Dimension-extremes: "Mainly concrete"......"Mainly Fantasy".
(For Groups II and III)

RATE HOW MUCH FANTASY AND IMAGINATION THE CHILD TENDS TO PUT INTO HIS PLAY IN PLAY
SITUATIONS WHICH ARE ORDINARILY CONDUCIVE TO THE STIMULATION OF IMAGINATIVE BEHAVIOR.
(Consider in particular the degree of imaginative dramatizations involved while playing)

Consider only CHILD'S 'PRESENT BEHAVIOR'.
i.e., base ratings on observations made
during past six or eight school days.

Names of Children to be Rated

Behavior Descriptions
(Cues for Ratings)

Plays concretely with objects 'as they are';
imaginative dramatizations are absent.

Much concrete play with occasional appearance
of brief fantasies such as a theme or story, or
imagined 'roles' for characters or objects.

Concrete play seems frequently interwoven with
some fantasy. However, direction and content of
the playing remain still mainly determined by
the actual (real) properties of the play-objects
and playmates "as they really are".

Imaginative processes (e.g., dramatizations) are
very frequent and often determine content and di-
rection of play.

While playing Ch can typically be observed to deal
with objects and playmates as if they have only those
characteristics (e.g., "roles") which ch imagines,
as if their real properties matter little.

This scale extends from o to o. Place an
X for every child anywhere between these
2 limits to represent your rating. Beh.-
descriptions are given to exemplify a few
of the possible steps on an IMAGINATIVE
PLAY BEHAVIOR CONTINUUM which ranges from
mainly-concrete-play to mainly-fantasy-
play. Dashes, locating each beh-descrip-
tion on this scale, serve as reference
points, but raters should not necessarily
confine their ratings to these reference
points.

Further behavior descriptions to exemplify
ratings can be entered below by the rater.

CONSISTENCY: Rate how variable each child is in
his imaginative playing as described by your rat-
ings. Very consistent 1-2-3-4-5 Very irregular.

Comments: (if more space needed, use back of sheet)

Rater's Name:

Date of Ratings:

Comments: (if more space needed, use back of sheet)

FANTASY RATING SCALE   Subject: _____   Rater (obs): _____   (Experiment with Preschool-Theme.)
(For Observer only.)

AFTER EACH EXPERIMENTAL SESSION RATE THE DEGREE OF S' INVOLVEMENT IN HIS OWN FANTASY-PLAY. Do not rate his relative "tangentiality", rather, JUDGE HOW DEEPLY THE CHILD BECAME INVOLVED WHEN HE WAS NOT TANGENTIAL.

Dates of sessions:

	Session 1	Session 2	Session 3	Session 4	Session 5

Behavior-Descriptions
(rating cues)

Detached, not involved; child tells his story or dramatizations in an detached reporter-like manner

Somewhat involved, most fantasy-responses were matter-of-fact, reporter-style, however: emotional neutrality was occasionally broken.

Midground, half-neutral - half-involved, About 50% of the fantasy-events portrayed some emotional involvement.

Involved, Emotional Rs(ie:excitement,serious-ness, guilt, satisfactions,etc) were marked and occurred frequently.

Deeply involved: Child "lived" his fantasy-events; his own emotionality varied with the story-events.

FLUCTUATION:Rate how much the degree of involve ment fluctuated during each session around the point of gravity represented by your rating:
Very stable 1-2-3-4-5 Very fluctuating

Comments:

DESCRIBE BRIEFLY THE FANTASY-EVENTS (Doll-Actions) DURING WHICH THE SUBJECT SHOWED DEEPEST INVOLVEMENT RELATIVE TO HIS OWN INVOLVEMENT-LEVEL.

During Session 1:

During Session 2:

During Session 3:

During Session 4: